Gulstonian Lectures
ON
SPASM IN CHRONIC NERVE DISEASE.

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LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—In my first lecture I considered the part played by chronic diseases, which injure the intracranial portion of the pyramidal tract, in the production of spasm. It was pointed out that the results are similar, whether the lesion is situated in the motor area of the cortex, in the central ganglia, in the crus, pons, or medulla, provided that the function of the fibres of the pyramidal tract be interrupted. A point which is of great importance, and which will be again referred to when we come to a consideration of functional spasm, is this, that congenital defects of portions of the central nervous system are as capable as destructive diseases of producing paralysis of limbs, accompanied by spasm.

Case of Congenital Spastic Hemiplegia.—In the Med.-Chir. Trans. (vol. lxvi., 1883) I published a case of Asymmetry of the Brain, and discussed the bearing of the anatomical peculiarities of the specimen on the question of the connexion between the optic nerves and certain definite areas of the cerebral cortex. But the case is also a good example of the disease called congenital spastic hemiplegia, and for this reason I refer to it here. E. A—— was admitted into St. Thomas's Hospital, under the care of Mr. Mason, owing to injuries received by the fall of a house; and she died of the results of the accident. I never saw her until I performed the post-mortem examination upon her; and no account was obtained during her lifetime of the abnormality in her right arm and leg, nor of the state of her mind and special senses. After death, her father informed me that his daughter had always been healthy up to the time of the accident, which proved fatal in a few weeks; that she had never suffered from fits or other nervous affections; that from her very birth she had had a small and stiff right arm; and that she had always been left-handed and a little lame. He had never noticed any mental deficiency; and she had never complained of her sight, hearing, or other senses. No peculiarity in her eyes, speech, or aspect was noticed during her stay in the hospital; but the sister of the ward said that she struck her as being intellectually dull, even for a person in her position in life. At the necropsy both the right arm and leg were seen to be smaller than their fellows, though they were otherwise normally formed; and the muscles examined presented the rich brown colour of health. The right wrist measured 4½ in., the left 5⅜ in.; the right forearm 6½ in., the left 8 in. The circumference of the left leg, round the calf, exceeded that of the right by one inch. The heart, lungs, and other viscera were healthy, with the exception of the kidneys and the bladder, which were in a state of acute inflammation. The skull and the membranes of the brain were normal, as were the intracranial bloodvessels, nor was there any marked inequality of the latter on the two sides.

I need not enter into the minute details given in the paper referred to, but may simply state that both the history of the patient and the anatomical peculiarities of the brain showed that it was a case of malformation of one portion of the left hemisphere, and arrest of development of the remainder. The most striking characteristics of the specimen which is here shown (Figs. 14, 15, 16, 17) were: (1) the general arrest of development of the left hemisphere, including the motor convolutions; (2) the small size of the corresponding crus cerebri and anterior pyramid; (3) the absence of the angular gyrus and superior temporo-sphenoidal convolutions, together with the fusion of some of the other convolutions of the left temporo-sphenoidal lobe; (4) the small size of the optic tract, optic thalamus, and corpora geniculata on the same side. The spinal cord was subsequently examined, and, throughout its whole length, it was seen that the right lateral column was smaller than the left, and the left column of Türck smaller than the right. (Fig. 18.) These differences were most marked in the upper regions of the cord, and became less and less so towards the lumbar enlargement. The microscope showed that in those parts where reduction in size was evident, even to the naked eye, the nerve fibres were fewer in number and the tissues a little denser than in health; and the general impression left upon the observer's mind was that there was an absence of nerve fibres, and consequent undue prominence of the connective tissue. In this case there was clearly congenital absence of part of the motor convolutions and of the corresponding pyramidal tract; and, clinically, paralysis with spasm was observed. Such a combination seems to prove that the mere absence of the controlling impulses which in healthy subjects traverse the pyramidal tract is capable of giving rise to a spastic condition of the limbs.

Congenital defects similar to that which has just been described may be bilateral, and produce a condition about which a good deal has been written, and which is termed "infantile spasmodic paralysis," or "spastic paraplegia of infancy." Dr. Hadden, writing on this disease in *Brain* (vol. vi., 1884), says, "the lower extremities are more or less flexed at the hip- and knee-joints, the thighs are rigid and adducted, the knees in contact, the legs inclined outwards, and the heels often drawn up from the ground by the contraction of the gastrocnemii." Figs. 19 and 20[1] represent a well-marked but not extreme case of the kind, which was under Mr. Clutton's care in St. Thomas's Hospital. The child was an idiot, as many of them are. Dr. Ross has proved, by post-mortem evidence, that defects in the development of the brain can produce this condition. In *Brain* (vol. i., 477), he records a case of the disease in which he found at the necropsy a congenital defect in the motor convolutions on both sides, and absence of the large pyramidal cells normally existing in them. He found the same condition of the spinal cord as was present in my case of congenital spastic hemiplegia—namely, absence of a certain amount of the lateral columns,—but no other

FIG. 20.

From a photograph of a slight case of congenital spastic paralysis

[1] The numbered figures which are referred to in the text were shown when the lectures were delivered, but only a certain number are reproduced here.

abnormality. Whether all cases of congenital paralysis and spasm of the limbs be due to arrest of development of portions of the brain is at present uncertain, but it is not at all improbable that intra-uterine disease of parts already formed may be the explanation of some. Contracture, or fixed spasm, is a comparatively frequent result of cerebral lesions which interrupt permanently the voluntary impulses proceeding from the cortex. But, in addition, mobile spasms have been observed in great variety, either after hemiplegia or independently of it. Sometimes they attend voluntary movements only; sometimes they are involuntary and continuous; but in all of them the retention of a large amount of voluntary control over the limbs affected is a striking feature. In addition to the mobile spasm, there is often a certain degree of fixed spasm, though a marked degree of the latter would be incompatible with the development of the former. Continuous movements of the hands and toes have been termed "athetosis." The following is a case of the kind which I reported in *Brain* for April, 1885. It is a good example of this condition, though rare because of the number of muscles affected, and because the movements appeared after many years on the opposite side of the body.

G——, aged twenty-four, came under my care as an out-patient at St. Thomas's Hospital on March 26th, 1884. Until the patient was three years old he was quite healthy; he was then suddenly attacked with loss of power all down the left side, accompanied by repeated and prolonged convulsions. As far as he knew, the movements of the limbs and face on the left side gradually followed the loss of power, and had gone on increasing ever since; at any rate, they had done so as long as he could remember. When between four and five years of age he was taken to Great Ormond-street Hospital, where his parents were told that the movements were so slight that he would get over them. About three years ago weakness and movements came on in the right leg, and he went to Guy's Hospital, where he was told that nothing could be done for him. He then consulted a homœopathic chemist, who gave him "strengthening medicine," and his right leg became strong again, and the movements in it ceased in three months. A month ago the weakness and movements recommenced in the right leg, and they gradually increased. The arm was said to be free from them. The patient had never had any other severe illness, had not suffered from headaches, and had done his work well as a carpenter until the last six months. During this time the movements of the left hand had been so bad that he had been unable to hold the nails with accuracy, though he could hammer well enough with his right arm. He said he had never had any defect of sight or hearing. On rough examination, vision seemed normal, and he heard the tick of a watch a long way off. There were movements of the greater part of the muscles on the left side of the body, and they ceased during sleep; there was no anæsthesia. The tongue moved a little irregularly, as it did in chorea; speech was drawling. The muscles, both of the left and of the right side of the face contracted too strongly when the patient attempted to speak, so that a kind of grimace resulted, in which the lines at both angles of the mouth and the naso-labial furrows were very deeply marked. There were spasmodic, more or less regular, movements of the neck to the left, and the shoulder was rhythmically raised, and jerked slightly forwards and backwards. One could see the serrations of the left serratus magnus contracting rhythmically. The abdominal muscles were harder on the left side than on the right, but there were no evident movements in them. There were slight spasmodic movements in the left arm, but they were only slight. The hand, on the contrary, was markedly affected. There was constantly more or less rhythmical flexion and extension of the fingers, mainly at the meta-carpo-phalangeal joints, with irregular flexion and extension of the phalangeal joints, and occasional separation of the fingers. In the left leg there were similar slight movements of the muscles, with marked movements of the toes, and most marked of the great toe. There were tremulous flexions and extensions, but the flexor longus pollicis was constantly contracted, so that the great toe was always riding over the others, and its proximal phalanx was usually at right angles to the metatarsal bone. In the right foot the movements were similar, but not so marked. In the right hand only the little finger moved, and that so slightly that the patient had not noticed it. The grasp of the right hand, though stronger than that of the left, appeared to be deficient in power; the patient said, however, that he had never noticed that it was weak. There was neither atrophy nor hypertrophy of the muscles of the limbs. The patellar reflex was unnaturally brisk on both sides, but there was no ankle-clonus. The patient seemed very intelligent, and said that his memory and mental power were very good. The fundus of the eyes and fields of vision were normal. The urine contained no albumen.

The next case is one of fixed combined with mobile spasm, and also differs from that just described in this, that there was no history of hemiplegia or monoplegia preceding the onset of the muscular contraction.

Case of Mobile and Persistent Muscular Spasm of the Upper Extremity.—E. F——, aged eleven, came to St. Thomas's Hospital as an out-patient, under me, in June, 1884. She was a very well made, intelligent, lively child, and in these respects was said to resemble the rest of her family. When she was nine months old the mother noticed that she held her left arm behind her back, and did not use it properly. Ever since the arm had been becoming gradually more distorted and useless. On examination it was found that the left arm was not undersized or atrophied, but that it was the seat of extreme distortion, which rendered it perfectly useless. The forearm was excessively pronated, so that the palm of the hand looked outwards, and the wrist was flexed; the metacarpo-phalangeal joints were extended, the proximal phalangeal joints hyper-extended, and the peripheral flexed. The elbow-joint was flexed, and looked unshapely. The metacarpo-phalangeal joint of the thumb was flexed, and the phalangeal joint hyper-extended; and the thumb, as a whole, was turned inwards towards the palm. All the parts described were rigidly fixed in these positions, apparently by the spasmodic action of the muscles. But the spasm could with difficulty be overcome, and then the limb assumed quite a new appearance. Thus, if pronation were rectified and the elbow bent, the wrist at once became extended, all the fingers flexed, and the thumb was turned into the palm of the hand beneath them. This state of affairs was only retained by keeping the elbow-joint flexed, and forcibly overcoming the tendency to excessive pronation. As soon as the latter was allowed to assert itself the whole limb at once returned to the original position. Sensation was unaffected. Dr. Kilner, who tested the electric condition of the affected parts, reported that the muscles reacted normally to the induced current, and presented very slight reaction of degeneration when the constant current was used. On giving chloroform the distortion almost entirely disappeared, the muscles were flaccid, and the tissues of the elbow-joint appeared very lax. The child had attended the Orthopædic Hospital for one year without deriving any benefit; but electricity had not been tried. Dr. Kilner was good enough to undertake treatment by this means, but though he continued it for weeks the condition underwent no improvement. On August 24th, 1885, I took her to have the abnormality photographed, and I then found that certain alterations had occurred in the condition of the hand and arm. The most marked change was that they were never still; in fact, the case might then have been called one of athetosis of the left upper extremity. The arm, when left alone, usually occupied a position midway between the perpendicular line of the body and a horizontal line drawn through the left shoulder-

FIG. 21A

Case of spastic paralysis of the left arm and hand, showing the position assumed when the wrist was extended.

FIG. 21B.

Showing position assumed when the wrist was flexed.

joint, and the latter was extended, the forearm pronated, the wrist flexed, and the fingers flexed at the peripheral phalangeal joint, and hyper-extended at the proximal. Such a degree of hyper-extension now existed in the metacarpo-phalangeal joint of the thumb that partial luxation had been produced. The child generally liked to hold the hand across the front of the body, with the fingers a little flexed. Irregular clonic jerks affected the whole arm from the shoulder, and the fingers were in more or less constant movement when left to themselves. There were occasional slight jerks of the left angle of the mouth, but the leg appeared free from any abnormality. The child asserted that she had always had these movements, though I certainly did not notice them when I first saw her. Figs. 21A and 21B represent the condition of things in January, 1886.

Mobile spasms do not always assume the characters which are described under the term "athetosis." Movements resembling more or less those of chorea, disseminated sclerosis, ataxy, and paralysis agitans, likewise occur.

On June 11th, 1885, a woman, aged sixty, came to my out-patient room, complaining of loss of power all down her left side; her face, arm, and leg were all weak, and there was a considerable degree of hemianæsthesia. This condition had slowly developed in the course of three months. Though she had had rheumatic fever twice, there was no apparent disease of her heart or other viscera, but her arteries were somewhat hard. By November moderate hemiplegic rigidity had developed, and, in addition, continuous movements exactly resembling those of paralysis agitans.

It is unnecessary to describe the various forms of mobile spasm which are seen at the bedside. Dr. Gowers has given an account of a considerable number (Trans. Royal Med.-Chir. Society, vol. lix.); and Charcot and others have also recorded cases. What concerns us more on the present occasion is the question of their pathology. Can they be attributed to any lesion constant either in its nature or in its position? The answer to this must be in the negative; but we have to confess at the same time that our knowledge of this class of spasm is very deficient. Gowers, in the paper already referred to, records a case of "post-hemiplegic incoördination," in which he found, at the necropsy, one lesion only, and that was a cicatricial induration confined to the optic thalamus, and unaccompanied by any pathological changes in the spinal cord. Weir Mitchell found the seat of the lesion in two cases in the corpora striata. In the *Revue de Médecine* for May, 1883, Emile Demange records the necropsy in nearly a dozen cases of post-hemiplegic mobile spasm; and among these is a case of hemiathetosis, in which there was extensive softening of the convolutions, but no disease of the central ganglia. In most of the cases the lesion or lesions were in the central ganglia, sometimes involving the internal capsule, and sometimes not. Hence it seems to me that we must agree with Demange when he says that these movements may occur from disease of any part of the motor tract in the brain; and he adds that the variety of movement does not depend upon the seat of the lesion, but rather upon the condition of the motor tract below the lesion.

All the varieties of mobile spasm seem to result from a mixture, in varying proportions, of paralysis, spasm, and irritation; and their development depends upon lesions which interfere with the perfect functions of the motor centres and fibres, but which do not completely interrupt them. That such a condition of incomplete destruction is competent to give rise to movements of the kind under consideration is shown by a case which I published in THE LANCET in a paper on Cerebral Localisation already referred to. The patient was a woman aged forty-six, who was admitted into St. Thomas's Hospital on July 20th, 1878, and died on July 21st, 1879. She was suffering from chronic renal disease, and on Jan. 18th, 1879, she complained of being unable to keep her left arm still. The movements both of the arm and leg soon became violent and disorderly. When asked to put her left hand to her face, she did so hesitatingly, and with a series of jerks which had no constant rhythm or direction. The same occurred on voluntary movement of the leg, while the right arm and leg were moved slowly and naturally. The jerking movements gradually subsided until, on Jan. 30th, the leg was freely and normally moved, while the left arm was almost completely paralysed, and, although it recovered some degree of power, it remained markedly paralysed to the end of her life. After death the middle part of the ascending parietal convolution on the right was softened, shrunken, and of an orange colour. It is clear in this instance that the involuntary movements of the limb occurred at the time when the cortical grey matter was in the early stages of softening, and that they ceased when paralysis resulted from its complete disorganisation.

In concluding the consideration of spasm in connexion with diseases of the intracranial portions of the voluntary motor path, it is necessary to refer to a statement which I made in my first lecture—namely, that "our present knowledge of anatomy, physiology, and pathology does not justify us in concluding that there is any efferent motor connexion between the brain and the spinal cord, except the pyramidal tract, direct and crossed, disease of which gives rise to chronic muscular spasm. Evidence in support of this view will appear in subsequent portions of these lectures." In saying this I wished to exclude the cerebellum and the central ganglia from consideration, since any rigidity or spasmodic contraction of muscles which arises in connexion with diseases of the areas they occupy seems to depend upon involvement of the pyramidal tract, which passes close by them. Evidence has also been supplied in support of this view as far as the cerebellum is concerned. Let me now record a case which shows that destruction of the central ganglia produces no spasm so long as the neighbouring internal capsule is intact.

C. B——, aged thirty-nine, had an attack of right hemiplegia ten years before death and another somewhat later. He died of carcinoma of the cæcum, having long recovered completely from all paralytic symptoms. At the necropsy I found that the hemispheres were free from disease. On exposing the ventricles, it was at once seen that the left caudate nucleus was very much shrunken and of a yellowish hue. Both optic thalami and the right nucleus caudatus looked healthy. The left crus cerebri was small and discoloured along its inner third, and the left side of the pons Varolii was evidently flattened. Nothing abnormal was noticed in the crus cerebelli on either side, and the pyramids in the medulla oblongata were equal and natural. No descending degeneration was to be discovered in the spinal cord with the naked eye. The brain was then set aside to harden in alcohol before any further examination was made. A series of horizontal sections through the hemispheres and central ganglia showed that there was hardly anything left of the nucleus caudatus or of the nucleus lenticularis on the left side, but there were no evident changes in either division of the internal capsule. The optic thalamus was a little smaller than its fellow on the opposite side, while all the central ganglia on the right were healthy. (Fig. 22.) A vertical section through the crura cerebri showed very marked atrophy of the left as compared with the right. A similar diminution in size was observable in the left half of the pons (Fig. 23); but the pyramids and all other divisions of the medulla oblongata were healthy and symmetrical.

This case shows that disease so severe as to result in almost total obliteration of the corpus striatum may produce hemiplegia, which passes off without leaving rigidity, paralysis, or any other symptom behind. And, secondly, it proves, as far as any single case can prove, that the efferent fibres of the corpus striatum do not pass down further than the pons Varolii or medulla oblongata.

The continuous degeneration of the lateral column through the whole length of the spinal cord in cerebral lesions shows that the fibres are not interrupted by entering ganglionic centres, but pass straight to their several destinations in the anterior cornua. It will be readily understood that if disease destroy them at any level in the spinal cord, degeneration will occur in them below, and give rise to symptoms of hyper-physiological activity of the spinal centres with which they are connected, similar to those which occur when the disease is intracranial. In the latter case all the spinal centres which are under voluntary control are affected; in the former, only a certain number, more or less numerous according as the lesion is situated high up or low down in the cord. There is this difference, too, that in cerebral disease the rule is to find the contracture unilateral, in lesions of the cord bilateral. But this is merely because the pyramidal tracts in that part of the brain where they are most liable to be interrupted by disease lie at some distance from each other; whereas in the spinal cord they are so close together as usually to be involved in the same pathological changes. The symptoms, however, of disease of the lateral columns of the cord are the same, whether it follow cerebral or spinal lesions. The affections of these columns are either primary or secondary,

and the symptoms differ slightly accordingly. Thus, if a primary chronic inflammation attack them, as in primary lateral sclerosis or disseminated sclerosis, paresis of the corresponding muscles is an early symptom, and tremors of the limbs when moved, increased tendon reflexes, and clonus soon follow. In addition to these, transitory involuntary contractions and longer though still intermitting spasms occur, and finally culminate in persistent rigidity. When the latter has fairly set in, the muscles can only be loosed from their slavery by a process which condemns them to perpetual inaction. Their masters, the cells in the anterior cornua, may be attacked and die; but the muscles perish with them, and the tendon reflexes and other signs of their activity disappear for ever. But the lateral columns are more often affected secondarily than primarily, and then the symptoms which culminate in spasm follow those which characterise the original disease. Thus we often see cases of myelitis run their course to destruction of a portion of the spinal cord, and rigid contracture of the limbs then supervenes. Such disease occurs more frequently in parts below the cervical region than in those above it, and consequently the legs are more often the seat of rigidity than the arms. But matters are not always so simple as this, for a lesion of the lateral columns may be combined with that of some other tract of fibres; and a combination of symptoms then presents itself, some being attributable to disease of one tract, and some to disease of the other. If we are to draw correct conclusions with regard to the localisation of diseases of the spinal cord and their progress, we must never lose sight of the phenomena which characterise the healthy action of the nervous system. Physiology is the only safe guide for the diagnosis of the positions occupied by disease. Again, although pressure upon the pyramidal fibres interrupts their functional activity, the symptoms are very different according to the manner in which the pressure is applied, whether from without or from within the cord. As time will not permit me to enter into detail upon all those diseases of the spinal cord which give rise to spasm, I shall try to illustrate from my own experience the two points to which I have specially referred—namely, first, the difference in the results of pressure applied upon the cord from without and from within; and, secondly, the modification which occurs in the symptoms of disease of the lateral columns when it is combined with disease of other parts of the cord. The following case is a good instance of pressure on the spinal cord from without, giving rise to interference with the function of the lateral columns and to extreme contracture of the lower limbs.

Case of Tumour (Myxoma) on a Spinal Nerve, which pressed upon the Cord and produced Paralysis and Spasmodic Contraction of the Lower Limbs.—A. J——, aged twenty-four, blacksmith, was admitted into St. Thomas's Hospital, under the care of Dr. Bristowe, on April 20th, 1876. His family history was unimportant, and until his present illness began he had always enjoyed good health. He had drunk freely both beer and spirits. He was in the habit of lifting heavy weights, and had occasionally "ricked" his back, but had never suffered from any serious injury. In August, 1875, he began to feel a sensation of weakness in the loins, but he had no actual pain. This was followed in November, 1875, by a certain degree of weakness in walking, which slowly increased, so that he became unable to walk at all two months before admission. During this period he suffered from cramp, with slight loss of power in his left arm, and from occasional attacks of sharp shooting pains and cramp in his legs. He had had no loss of sensation or numbness anywhere. On admission, he was found to have marked paraplegia, but no loss of sensation. He suffered from cramps, and his legs at times were flexed involuntarily. He had incomplete control over his evacuations. His left hand and arm were not as powerful as his right. All his organs appeared to be healthy, and he had no albumen or pus in his urine. Somewhat later, painful contraction of the adductor muscles of the thighs used to come on and last for hours; and he had slight numbness as high as the umbilicus. When these attacks of spasm supervened in the muscles of the leg, pain and similar cramps were experienced in the left arm. The remainder of his life was very painful. His legs became gradually more and more permanently and rigidly flexed and adducted, and bedsores developed over the internal aspects of the knees, where they were forced against each other, as well as over the sacrum and trochanters. Sensation, however, rather improved than deteriorated. Finally, incontinence of the evacuations, cystitis, and hectic fever set in; and the patient died on August 17th, four months after admission, and one year from the date of his first symptoms. At the necropsy most of the organs were found to be perfectly healthy, the urinary tract and spinal cord alone presenting evidences of disease. The pelves of the kidneys and the ureters were inflamed, and the kidneys were large and succulent. On one of the anterior spinal nerves, which originated just at the termination of the cervical enlargement, was a tumour about as large as a medium-sized marble. It was firm, pale in colour, and covered with a perfectly smooth fibrous sheath. The nerve was lost in its substance, but the tumour was free from adhesions with the spinal cord and all the surrounding structures. It was wedged in between the bones forming the spinal canal on the one hand and the anterior surface of the spinal cord on the other, so that the latter was flattened by it anteriorly and slightly laterally. The tumour was a myxoma.

The motor phenomena which characterised this patient's history were paralysis, attacks of tetanic spasms, and, finally, persistent rigidity of the legs. Making allowance for the position at which the pressure was applied to the spinal cord—namely, below the origin of the nerves supplying the arms,—the occurrence of tetanic spasms in the legs from time to time reminds us forcibly of similar but more extensive spasms which occur when the disease occupies the base of the brain or the cerebellum, and, I think, gives support to the conclusions which were drawn as to the part played by the cerebellum in their production. A point which should be specially noted in this case is this, that when the pains and tetanic spasms occurred, pain and spasm were likewise felt in parts supplied by the nerve on which the tumour was situated. These attacks of spasm in the legs, which were intermittent, appear then to have been produced by changes occurring in the tumour, which also showed their presence by increased pressure on the nerves for the arm which it involved. The same intermittence was observed in the spasmodic attacks produced by the tumours which occupied the base of the brain, and the same thing occurs when a tumour presses upon the cerebral cortex. We may conclude, therefore, that in all such cases the convulsions are due primarily to alteration in the condition of the tumour, though we cannot say in what the alteration consists.

[ERRATUM.—On page 532, second column, six lines from the bottom, for "lenticulo-striate and lenticulo-optic arteries" read "lenticulo-striate artery."]

(To be concluded.)

Croonian Lectures

ON

SOME POINTS IN THE PATHOLOGY OF RHEUMATISM, GOUT, AND DIABETES.

Delivered at the Royal College of Physicians of London, April, 1886.

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LECTURE I.—ABSTRACT.

THE three disorders of rheumatism, gout, and diabetes are classed together because they seem to possess a certain relationship with each other. Cases occur in which it is difficult to decide whether the disease must be regarded as rheumatic or gouty. Not infrequently transient diabetes appears as the harbinger of a gouty attack; and, on the other hand, gouty, rheumatic, or neuralgic pains are very common accompaniments of diabetes. In all we have changes, differing, however, in character, showing themselves in the blood, the result of abnormal metabolism either in the muscular or glandular tissues. What are the changes that take place in the tissues or in the blood? In attempting to answer these inquiries we meet at the outset with a most serious difficulty. We

require to know what the constitution of the particular tissue is, its proximate constituents, its structural formula, *not* its ultimate chemical composition. We do not know what are the proximate elements which make up living tissue, nor what are the chemical changes which take place as it performs its function, nor the alteration in the arrangement of its molecules as it passes from an active to an effete state. By chemical investigation it has been shown that various complex bodies which did not exist as such in the living tissue can be extracted from the different tissues after death. This subject was illustrated by a reference to the changes that occur in blood after being shed and to the chemical differences of living and dead muscle. No definite agreement has yet been arrived at as to the constitution of dead proteid, or as to the manner in which the various substances, leucine, tyrosine, &c., are contained in it. Lieberkühn gives its formula as $C_{72}H_{112}N_{18}O_{22}S$; and this, according to Hlasiwetz and Habermann, by hydration, may be split up into aspartic acid, glutamic acid, leucine, tyrosine, and ammonia. Seeing the difficulty of studying the dead tissues, Dr. Latham said it might appear presumptuous and rash on his part to endeavour to assign a molecular structure chemically to living tissue. Still, he would make the attempt and advance a theory which appeared to him to explain many changes in the tissues. It was well known that lactic acid, leucine, glycocine, and other bodies could be prepared in the laboratory from a particular series of cyanogen compounds, the so-called cyanalcohols or cyanhydrins—bodies which may be obtained by oxidising the various alcohols, and so forming the aldehyde, and then combining this with hydrocyanic acid. Thus:

$$\underset{\text{ethylic alcohol.}}{C_2H_5HO+O} = \underset{\text{ethaldehyde.}}{CH_3 . CHO+H_2O}$$

$$\underset{\text{ethaldehyde.}}{CH_3 . CHO+HCN} = \underset{\text{cyanethylic alcohol.}}{CH_3 . CH(CN)OH}$$

These cyanalcohols are very unstable bodies; treated with ammonia they form a series of cyanamides, also very unstable, and easily undergo condensation, being converted into imido-nitriles with elimination of ammonia. It is suggested that these cyanogen compounds possess some properties of living tissue—viz., those of undergoing intra-molecular change, and also condensation. May not albumen itself be regarded simply as a compound made up of these elements, if from these cyanogen compounds we can obtain the various products which result from the disintegration of albumen? Dr. Latham then pointed out some of the animal products that could be obtained from these cyanalcohols: leucine, which could be artificially obtained by oxidising amylic alcohol; then mixing with aqueous ammonia the aldehyde is converted into valeral ammonia, and this digested with hydrocyanic acid and hydrochloric acid is converted into leucine. This is the usual way of obtaining leucine artificially, but Tiemann has shown that the amido-acids both of the fatty and aromatic series may be obtained by converting the aldehydes and ketones into cyanhydrins and then into amido-nitriles, or cyanamides. Leucine prepared in this way is not quite identical with animal leucine. It is suggested that, just as sarcolactic acid is a compound of ethidene and ethene lactic acids, so leucine is a compound of several amido-acids, the molecule C_5H_{10} being made up in different ways. Amido-isovaleric acid or butalanine has been found in the pancreas of the ox, and it can be artificially prepared from the cyanalcohols; it has also been prepared by Schützenberger from albumen. Amido-butyric acid can be formed from cyanalcohols, and has been separated from albumen. By oxidation oxy-isobutyric acid is resolved into carbonic acid and acetone, a substance that sometimes appears in diabetic urine. Ethidene and ethene cyanalcohols may be prepared (1) by oxidising ethylic alcohol and treating the aldehyde so obtained with hydrocyanic acid; (2) by converting ethene alcohol or glycol into a cyanalcohol. From these cyanalcohols the corresponding amido-acids or alanines may be obtained. Alanine or amido-propionic acid was also among the products Schützenberger obtained from albumen.

The lecturer then proceeded to show how from the various alcohols, amylic, ethylic, &c., converted into aldehydes and then into cyanalcohols, the corresponding amido bodies, glycocine, leucine, &c., could be obtained, and all the acids of the acetic series, as well as those of the lactic acid series, which may also be prepared from animal substances. The formation of lactic acid and glycocine were thus referred to:—Lactic acid, again, is an important product of the animal organism. It is developed when a living muscle contracts, and is produced when a muscle dies. The variety of this acid, which is obtained from the disintegration of albuminous compounds, and is formed during the contraction of muscle fibres (sarcolactic acid), may be regarded as a mixture of two kinds of lactic acid, the more abundant being paralactic acid or ethidene lactic acid $CH_3 . CH\begin{cases}OH\\COOH\end{cases}$, the other ethene lactic acid $CH_2 . CH_2\begin{cases}OH\\COOH.\end{cases}$ By treating ethidene cyanalcohol with acids or alkalies, paralactic or ethidene lactic acid is obtained; by treating ethene cyanalcohol in the same way, ethene lactic acid is obtained.

The next point is whether the reverse process can be effected. Can the amido bodies in the system be converted into the cyanalcohols, and can we theoretically build up albumen from such bodies? The first step in this direction is indicated in what follows when amylaceous matter or sugar is introduced into the alimentary canal. A certain accumulation of glycogen takes place in the liver, and, further, a considerable quantity of sugar can be slowly injected into the portal vein without any appearing in the urine. The sugar loses a molecule of water, and becomes glycogen in the liver.

Now, in order to obtain the various amido-acids from albuminous tissue the reverse process must be adopted, the tissue must be hydrated, and a certain amount of water must enter into combination with it. Having shown that leucine and tyrosine, regarded as amido acids, exist in the intestines, and having quoted the evidence from Foster's physiology that leucine and probably tyrosine can become converted by the liver into urea, though there is much difficulty in understanding how this is effected unless we suppose that the amido acids first pass through an ammonia phase, Dr. Latham drew attention to the almost complete disappearance of urea from the urine in cases of acute yellow atrophy of the liver, leucine and tyrosine being abundant. The experiments of Solnikoff, too, show that the urea which passes out of the system by the kidneys enters the circulation with the blood which issues from the liver.

It is hardly intelligible that the nitrogen in the fresh nutritive material should immediately be transformed into urea and pass out of the system. These amido acids or glycines are capable of uniting with each other, and their molecular weights are at least double as great as their formulæ would indicate (Hofmeister). Now as the function of the liver in forming glycogen seems to be dehydration of glucose, the question naturally suggests itself: What compounds would result from the liver acting in the same way on these duplex or triple glycines? What substances would be produced by their dehydration? Can they in any way be converted into a series of cyanalcohols?

In 1828 Wöhler showed that urea $CO\begin{cases}NH_2\\NH_2\end{cases}$ can be produced by molecular transformation of $CNO . NH_4$ (ammonium cyanate) by simply heating a solution of the latter. Pflüger, in calling attention to the great molecular energy of the cyanogen compounds, suggested that the functional metabolism of protoplasm by which energy is set free may be compared to the conversion of the energetic unstable cyanogen compounds into the less energetic and more stable amides. In other words, ammonium cyanate is a type of living and urea of dead nitrogen, and the conversion of the former into the latter is an image of the essential change that takes place when a living proteid dies. Dr. Latham then showed how it was possible chemically to produce an *atomic* combination of the cyanalcohols united to a cyanamide and an acid by making glycocine go through various hydrations and dehydrations. Another glycine—tyrosine—$C_6H_4\begin{cases}OH\\C_2H_3(NH_2)\ COOH\end{cases}$ or para-oxyphenyl-amido-propionic acid, could be obtained from proteids. By combining tyrosine with glycocine, H_2O, being eliminated, we should obtain a cyanogen compound. Bearing in mind that some cyanogen compounds by condensation of three molecules form new compounds, such as

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we may combine the compound of tyrosine and glycocine with three molecules derived from glycocine, and three molecules derived from each of the other glycines in the series including leucine; we should then obtain a very complex com-

and the symptoms differ slightly accordingly. Thus, if a primary chronic inflammation attack them, as in primary lateral sclerosis or disseminated sclerosis, paresis of the corresponding muscles is an early symptom, and tremors of the limbs when moved, increased tendon reflexes, and clonus soon follow. In addition to these, transitory involuntary contractions and longer though still intermitting spasms occur, and finally culminate in persistent rigidity. When the latter has fairly set in, the muscles can only be loosed from their slavery by a process which condemns them to perpetual inaction. Their masters, the cells in the anterior cornua, may be attacked and die; but the muscles perish with them, and the tendon reflexes and other signs of their activity disappear for ever. But the lateral columns are more often affected secondarily than primarily, and then the symptoms which culminate in spasm follow those which characterise the original disease. Thus we often see cases of myelitis run their course to destruction of a portion of the spinal cord, and rigid contracture of the limbs then supervenes. Such disease occurs more frequently in parts below the cervical region than in those above it, and consequently the legs are more often the seat of rigidity than the arms. But matters are not always so simple as this, for a lesion of the lateral columns may be combined with that of some other tract of fibres; and a combination of symptoms then presents itself, some being attributable to disease of one tract, and some to disease of the other. If we are to draw correct conclusions with regard to the localisation of diseases of the spinal cord and their progress, we must never lose sight of the phenomena which characterise the healthy action of the nervous system. Physiology is the only safe guide for the diagnosis of the positions occupied by disease. Again, although pressure upon the pyramidal fibres interrupts their functional activity, the symptoms are very different according to the manner in which the pressure is applied, whether from without or from within the cord. As time will not permit me to enter into detail upon all those diseases of the spinal cord which give rise to spasm, I shall try to illustrate from my own experience the two points to which I have specially referred—namely, first, the difference in the results of pressure applied upon the cord from without and from within; and, secondly, the modification which occurs in the symptoms of disease of the lateral columns when it is combined with disease of other parts of the cord. The following case is a good instance of pressure on the spinal cord from without, giving rise to interference with the function of the lateral columns and to extreme contracture of the lower limbs.

Case of Tumour (Myxoma) on a Spinal Nerve, which pressed upon the Cord and produced Paralysis and Spasmodic Contraction of the Lower Limbs.—A. J——, aged twenty-four, blacksmith, was admitted into St. Thomas's Hospital, under the care of Dr. Bristowe, on April 20th, 1876. His family history was unimportant, and until his present illness began he had always enjoyed good health. He had drunk freely both beer and spirits. He was in the habit of lifting heavy weights, and had occasionally "ricked" his back, but had never suffered from any serious injury. In August, 1875, he began to feel a sensation of weakness in the loins, but he had no actual pain. This was followed in November, 1875, by a certain degree of weakness in walking, which slowly increased, so that he became unable to walk at all two months before admission. During this period he suffered from cramp, with slight loss of power in his left arm, and from occasional attacks of sharp shooting pains and cramp in his legs. He had had no loss of sensation or numbness anywhere. On admission, he was found to have marked paraplegia, but no loss of sensation. He suffered from cramps, and his legs at times were flexed involuntarily. He had incomplete control over his evacuations. His left hand and arm were not as powerful as his right. All his organs appeared to be healthy, and he had no albumen or pus in his urine. Somewhat later, painful contraction of the adductor muscles of the thighs used to come on and last for hours; and he had slight numbness as high as the umbilicus. When these attacks of spasm supervened in the muscles of the leg, pain and similar cramps were experienced in the left arm. The remainder of his life was very painful. His legs became gradually more and more permanently and rigidly flexed and adducted, and bedsores developed over the internal aspects of the knees, where they were forced against each other, as well as over the sacrum and trochanters. Sensation, however, rather improved than deteriorated. Finally, incontinence of the evacuations, cystitis, and hectic fever set in; and the patient died on August 17th, four months after admission, and one year from the date of his first symptoms. At the necropsy most of the organs were found to be perfectly healthy, the urinary tract and spinal cord alone presenting evidences of disease. The pelves of the kidneys and the ureters were inflamed, and the kidneys were large and succulent. On one of the anterior spinal nerves, which originated just at the termination of the cervical enlargement, was a tumour about as large as a medium-sized marble. It was firm, pale in colour, and covered with a perfectly smooth fibrous sheath. The nerve was lost in its substance, but the tumour was free from adhesions with the spinal cord and all the surrounding structures. It was wedged in between the bones forming the spinal canal on the one hand and the anterior surface of the spinal cord on the other, so that the latter was flattened by it anteriorly and slightly laterally. The tumour was a myxoma.

The motor phenomena which characterised this patient's history were paralysis, attacks of tetanic spasms, and, finally, persistent rigidity of the legs. Making allowance for the position at which the pressure was applied to the spinal cord—namely, below the origin of the nerves supplying the arms,—the occurrence of tetanic spasms in the legs from time to time reminds us forcibly of similar but more extensive spasms which occur when the disease occupies the base of the brain or the cerebellum, and, I think, gives support to the conclusions which were drawn as to the part played by the cerebellum in their production. A point which should be specially noted in this case is this, that when the pains and tetanic spasms occurred, pain and spasm were likewise felt in parts supplied by the nerve on which the tumour was situated. These attacks of spasm in the legs, which were intermittent, appear then to have been produced by changes occurring in the tumour, which also showed their presence by increased pressure on the nerves for the arm which it involved. The same intermittence was observed in the spasmodic attacks produced by the tumours which occupied the base of the brain, and the same thing occurs when a tumour presses upon the cerebral cortex. We may conclude, therefore, that in all such cases the convulsions are due primarily to alteration in the condition of the tumour, though we cannot say in what the alteration consists.

[ERRATUM.—On page 532, second column, six lines from the bottom, for "lenticulo-striate and lenticulo-optic arteries" read "lenticulo-striate artery."]

(To be concluded.)

Croonian Lectures

ON

SOME POINTS IN THE PATHOLOGY OF RHEUMATISM, GOUT, AND DIABETES.

Delivered at the Royal College of Physicians of London, April, 1886.

BY P. W. LATHAM, M.A., M.D., F.R.C.P.,

DOWNING PROFESSOR OF MEDICINE, CAMBRIDGE; SENIOR PHYSICIAN TO ADDENBROOKE'S HOSPITAL.

LECTURE I.—ABSTRACT.

THE three disorders of rheumatism, gout, and diabetes are classed together because they seem to possess a certain relationship with each other. Cases occur in which it is difficult to decide whether the disease must be regarded as rheumatic or gouty. Not infrequently transient diabetes appears as the harbinger of a gouty attack; and, on the other hand, gouty, rheumatic, or neuralgic pains are very common accompaniments of diabetes. In all we have changes, differing, however, in character, showing themselves in the blood, the result of abnormal metabolism either in the muscular or glandular tissues. What are the changes that take place in the tissues or in the blood? In attempting to answer these inquiries we meet at the outset with a most serious difficulty. We

require to know what the constitution of the particular tissue is, its proximate constituents, its structural formula, *not* its ultimate chemical composition. We do not know what are the proximate elements which make up living tissue, nor what are the chemical changes which take place as it performs its function, nor the alteration in the arrangement of its molecules as it passes from an active to an effete state. By chemical investigation it has been shown that various complex bodies which did not exist as such in the living tissue can be extracted from the different tissues after death. This subject was illustrated by a reference to the changes that occur in blood after being shed and to the chemical differences of living and dead muscle. No definite agreement has yet been arrived at as to the constitution of dead proteid, or as to the manner in which the various substances, leucine, tyrosine, &c., are contained in it. Lieberkühn gives its formula as $C_{72}H_{112}N_{18}O_{22}S$; and this, according to Hlasiwetz and Habermann, by hydration, may be split up into aspartic acid, glutamic acid, leucine, tyrosine, and ammonia. Seeing the difficulty of studying the dead tissues, Dr. Latham said it might appear presumptuous and rash on his part to endeavour to assign a molecular structure chemically to living tissue. Still, he would make the attempt and advance a theory which appeared to him to explain many changes in the tissues. It was well known that lactic acid, leucine, glycocine, and other bodies could be prepared in the laboratory from a particular series of cyanogen compounds, the so-called cyanalcohols or cyanhydrins—bodies which may be obtained by oxidising the various alcohols, and so forming the aldehyde, and then combining this with hydrocyanic acid. Thus:

$$\underset{\text{ethylic alcohol.}}{C_2H_5HO} + O = \underset{\text{ethaldehyde.}}{CH_3 . CHO} + H_2O$$

$$\underset{\text{ethaldehyde.}}{CH_3 . CHO} + HCN = \underset{\text{cyanethylic alcohol.}}{CH_3 . CH(CN)OH}$$

These cyanalcohols are very unstable bodies; treated with ammonia they form a series of cyanamides, also very unstable, and easily undergo condensation, being converted into imido-nitriles with elimination of ammonia. It is suggested that these cyanogen compounds possess some properties of living tissue—viz., those of undergoing intra-molecular change, and also condensation. May not albumen itself be regarded simply as a compound made up of these elements, if from these cyanogen compounds we can obtain the various products which result from the disintegration of albumen? Dr. Latham then pointed out some of the animal products that could be obtained from these cyanalcohols: leucine, which could be artificially obtained by oxidising amylic alcohol; then mixing with aqueous ammonia the aldehyde is converted into valeral ammonia, and this digested with hydrocyanic acid and hydrochloric acid is converted into leucine. This is the usual way of obtaining leucine artificially, but Tiemann has shown that the amido-acids both of the fatty and aromatic series may be obtained by converting the aldehydes and ketones into cyanhydrins and then into amido-nitriles, or cyanamides. Leucine prepared in this way is not quite identical with animal leucine. It is suggested that, just as sarcolactic acid is a compound of ethidene and ethene lactic acids, so leucine is a compound of several amido-acids, the molecule C_5H_{10} being made up in different ways. Amido-isovaleric acid or butalanine has been found in the pancreas of the ox, and it can be artificially prepared from the cyanalcohols; it has also been prepared by Schützenberger from albumen. Amido-butyric acid can be formed from cyanalcohols, and has been separated from albumen. By oxidation oxy-isobutyric acid is resolved into carbonic acid and acetone, a substance that sometimes appears in diabetic urine. Ethidene and ethene cyanalcohols may be prepared (1) by oxidising ethylic alcohol and treating the aldehyde so obtained with hydrocyanic acid; (2) by converting ethene alcohol or glycol into a cyanalcohol. From these cyanalcohols the corresponding amido-acids or alanines may be obtained. Alanine or amido-propionic acid was also among the products Schützenberger obtained from albumen.

The lecturer then proceeded to show how from the various alcohols, amylic, ethylic, &c., converted into aldehydes and then into cyanalcohols, the corresponding amido bodies, glycocine, leucine, &c., could be obtained, and all the acids of the acetic series, as well as those of the lactic acid series, which may also be prepared from animal substances. The formation of lactic acid and glycocine were thus referred to:—Lactic acid, again, is an important product of the animal organism. It is developed when a living muscle contracts, and is produced when a muscle dies. The variety of this acid, which is obtained from the disintegration of albuminous compounds, and is formed during the contraction of muscle fibres (sarcolactic acid), may be regarded as a mixture of two kinds of lactic acid, the more abundant being paralactic acid or ethidene lactic acid $CH_3 . CH \begin{cases} OH \\ COOH \end{cases}$, the other ethene lactic acid $CH_2 . CH_2 \begin{cases} OH \\ COOH. \end{cases}$ By treating ethidene cyanalcohol with acids or alkalies, paralactic or ethidene lactic acid is obtained; by treating ethene cyanalcohol in the same way, ethene lactic acid is obtained.

The next point is whether the reverse process can be effected. Can the amido bodies in the system be converted into the cyanalcohols, and can we theoretically build up albumen from such bodies? The first step in this direction is indicated in what follows when amylaceous matter or sugar is introduced into the alimentary canal. A certain accumulation of glycogen takes place in the liver, and, further, a considerable quantity of sugar can be slowly injected into the portal vein without any appearing in the urine. The sugar loses a molecule of water, and becomes glycogen in the liver.

Now, in order to obtain the various amido-acids from albuminous tissue the reverse process must be adopted, the tissue must be hydrated, and a certain amount of water must enter into combination with it. Having shown that leucine and tyrosine, regarded as amido acids, exist in the intestines, and having quoted the evidence from Foster's physiology that leucine and probably tyrosine can become converted by the liver into urea, though there is much difficulty in understanding how this is effected unless we suppose that the amido acids first pass through an ammonia phase, Dr. Latham drew attention to the almost complete disappearance of urea from the urine in cases of acute yellow atrophy of the liver, leucine and tyrosine being abundant. The experiments of Solnikoff, too, show that the urea which passes out of the system by the kidneys enters the circulation with the blood which issues from the liver.

It is hardly intelligible that the nitrogen in the fresh nutritive material should immediately be transformed into urea and pass out of the system. These amido acids or glycines are capable of uniting with each other, and their molecular weights are at least double as great as their formulæ would indicate (Hofmeister). Now as the function of the liver in forming glycogen seems to be dehydration of glucose, the question naturally suggests itself: What compounds would result from the liver acting in the same way on these duplex or triple glycines? What substances would be produced by their dehydration? Can they in any way be converted into a series of cyanalcohols?

In 1828 Wöhler showed that urea $CO \begin{cases} NH_2 \\ NH_2 \end{cases}$ can be produced by molecular transformation of $CNO . NH_4$ (ammonium cyanate) by simply heating a solution of the latter. Pflüger, in calling attention to the great molecular energy of the cyanogen compounds, suggested that the functional metabolism of protoplasm by which energy is set free may be compared to the conversion of the energetic unstable cyanogen compounds into the less energetic and more stable amides. In other words, ammonium cyanate is a type of living and urea of dead nitrogen, and the conversion of the former into the latter is an image of the essential change that takes place when a living proteid dies. Dr. Latham then showed how it was possible chemically to produce an *atomic* combination of the cyanalcohols united to a cyanamide and an acid by making glycocine go through various hydrations and dehydrations. Another glycine—tyrosine—$C_6H_4 \begin{cases} OH \\ C_2H_3(NH_2)\ COOH \end{cases}$ or para-oxyphenyl-amido-propionic acid, could be obtained from proteids. By combining tyrosine with glycocine, H_2O, being eliminated, we should obtain a cyanogen compound. Bearing in mind that some cyanogen compounds by condensation of three molecules form new compounds, such as

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we may combine the compound of tyrosine and glycocine with three molecules derived from glycocine, and three molecules derived from each of the other glycines in the series including leucine; we should then obtain a very complex com-

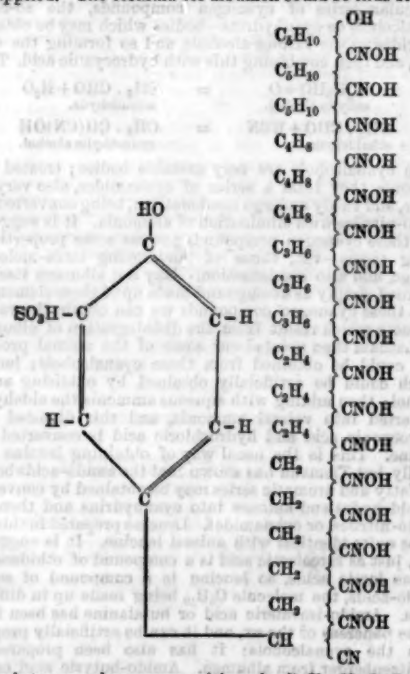
pound of cyanalcohols, the molecule COOH in the one series combining with NH_2 of the other to form CNOH. Then, combining the COOH and NH_2 with other molecules of the same composition, and replacing one of the hydrogen atoms of the benzene nucleus by SO_3H, we should obtain an enormously complex molecule, to which, if the molecule of CNOH be added, we should have a chemical formula almost identical with that given by Lieberkühn for albumen (*vide posted*). Dr. Latham next assumed for the nonce that albumen was built up of the above indicated cyanalcohols united to a benzene nucleus, the molecules being held together by some force vital or otherwise, and considered whether a body so constituted would afford an explanation of the changes that take place in the muscular tissues in its active and quiescent state. If the cyanalcohols were detached separately, they could be converted by hydration into the acids of the lactic acid series, and by combining them with ammonia into the various cyanamides, which, hydrated, are transformed into the glycines—glycocine, tyrosine, &c. The molecules making up these cyanalcohols may be detached in groups varying with the power which holds them together. The following is one change which may take place. By the hydration or decomposition of the separate cyanalcohols lowest in the series, we should have the corresponding acid formed and ammonia liberated; the nascent ammonia may, however, combine with the hydroxyl of the next molecule in the chain to form a cyanamide, which, hydrated, would form the amido acid, ammonia being again liberated and forming a cyanamide with the next molecule higher up, and so on all through the different series. These series were illustrated by showing how creatinine and creatine could be formed from the synthetically constructed molecules. Another mode in which the molecules may become detached was by the ammonia liberated by hydration, combining with the molecule CNOH to form $CNO.NH_4$, which if detached would in the blood as out of the body be converted into urea. In this way we pass from the lower cyanalcohols to the higher with the formation of urea. Here we have not only an explanation of the formation of urea in the tissues, but the reason why the amido acids obtained from the tissues possess different properties from those made in the laboratory. There is another mode in which these molecules may split up, which is interesting from two points of view. It appears to explain the formation of lactic acid and carbonic acid when a muscle contracts or when it dies, and it seems to throw light on the formation of tyrosine. If the molecule $CH_2\{^{OH}_{CNOH}$ were hydrated, forming $CN_2\{^{CN}$ $CH_2\{^{OH}_{CNOH}$ and the $CH_2\{^{COOH}$ portion CNOH then detached, the latter would be decomposed at once into CO_2 and NH_3, and we should have lactic acid formed:

$$\underset{\text{lactic acid}}{CH_2-OH\\CH_2-COOH} + \underset{\text{carbonic acid}}{CO_2} + \underset{\text{ammonia}}{NH_3}$$

the NH_3 combining with some other cyanalcohol to form a cyanamide.

Changes similar to these offer a very simple explanation of the formation of the cyanalcohols in plants, and as a consideration of these changes would help to explain the metabolic changes in the liver Dr. Latham briefly discussed them. In plants, CO_2 entering by the leaves combines with H_2O sent up from the roots to form methaldehyde H.CHO and oxygen O_2, a volume of oxygen equal to that of the CO_2 absorbed being exhaled by the plant.

MM. Loew and Bokorny and Pringsheim have shown that that there is a substance in living plasma which has the property of reducing silver salts, and for this reason is regarded as an aldehyde which results from the combination in the plant of CO_2 and H_2O. Methylic aldehyde by condensation becomes glucose, and the latter by dehydration starch; but if, instead of undergoing condensation, the aldehyde is oxidised, we get formic acid, which combining with NH_3 absorbed from the roots of the plant becomes ammonium formate, which dehydrated is converted into HCN. The hydrocyanic acid now combines with methylic aldehyde to form the cyanalcohol $CH_2\{^{OH}_{CN}$ and from condensation of these molecules with the separation of CNOH other cyanalcohols are formed. From such considerations, and from what has been said above as to urea, it would appear that when the amido acids are transformed into cyanalcohols and pass into the liver, condensation takes place with the formation of higher cyanalcohols and separation of CNOH, and that this change is constantly taking place all through the albuminous chain, the CNOH either combining with NH_3 to form urea or splitting up into CO_2 and NH_3. In this way the glycocine in the alimentary canal would on passing into the liver be transformed into $C_2H_4\{^{OH}_{CN}$ and CNOH, but we have no explanation of the origin of the lowest cyanalcohol. But if in plants glucose is a condensation product of methylic aldehyde, it is then no violent assumption that in the liver the glycogen after being transformed into glucose is resolved into its elements of six molecules of methylic aldehyde, and that this, by oxidation, combination with NH_3, and dehydration, is transformed, as in plants, into the lowest cyanalcohol of the series, $CH_2\{^{OH}_{CN}$. This view is supported by the experiments of Nägeli, which showed that albumen can be formed by fungi whose nutriment consists exclusively of sugar mixed with ammonia. By reviewing the constitution of tyrosine and deriving it from the cyanalcohol obtained from oxy-benzoin aldehyde, the lecturer showed how the molecule CNOH, which was wanting in his formula for albumen, could be supplied. The formula for albumen could be thus stated:



—a substance whose composition is $C_{72}H_{118}N_{18}O_{22}S$, and differs from Lieberkühn's formula by six atoms of hydrogen. Dr. Latham said he had thus endeavoured to show that albumen is a compound of cyanalcohols united to a benzene nucleus, these being derived from the various aldehydes, glycols, and ketones, or that they may be formed in the living body by the dehydration of the amido acids; that from a body so constituted all the different substances may be obtained which have been extracted from albuminoid tissues; that lactic acid is obtained in two ways, either from $C_2H_4\{^{OH}_{CN}$, or from changes and condensation in $CH_2\{^{OH}_{CN}$, with the simultaneous development of CO_2, a result which is brought about when a muscle contracts or when it dies; and that urea may be obtained from one series of cyanalcohols with the production of a cyanalcohol higher in the series. Such a compound of cyanalcohols could not be far off from the molecular constitution of albumen. Taking this view of the constitution of albumen, the

following may be given as a summary of the nutritive changes:—

The amido acids, glycocine, leucine, tyrosine, &c., in passing from the alimentary canal to the liver, are dehydrated, forming a series of cyanhydrins or cyanalcohols attached to a benzene nucleus, and then pass into the circulation. In the tissues these cyanalcohols, partly by condensation, partly by hydration and oxidation, give rise to the various effete products which are eliminated from the system chiefly in the form of carbonic acid and urea.

According to Tiemann, the cyanamides are very unstable bodies, and, with the elimination of NH_2, very easily condense into imido-nitriles. If, then, the force holding the cyanalcohols composing living proteid together were suddenly withdrawn, changes would rapidly occur in these unstable bodies with the formation of some acid and different cyanamides. The lowest cyanalcohols would condense to form lactic acid, carbonic acid, and ammonia; the latter combining with the higher cyanalcohols to form cyanamides, which would undergo condensation in the manner described by Tiemann. Some clue to the phenomena of rigor mortis and coagulation of the blood might be afforded by such considerations.

ON SOME

MODERN REMEDIES IN HEART DISEASE.

BY A. ERNEST SANSOM, M.D. LOND., F.R.C.P.,

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(*Concluded from p. 583.*)

II.—MITRAL STENOSIS.

IT is a matter of common experience that in mitral stenosis, just as in mitral regurgitation, compensation may be so effective that the subjects may for years manifest no symptoms to suggest the existence of cardiac disease. One point I must call attention to, as it indicates a discrepancy between different observers. Dr. Broadbent says that in mitral stenosis, according to his experience, "the pulse is almost invariably regular until the heart is obviously failing, unless the obstruction is complicated by regurgitation, or by valvular affection of the right side of the heart, or by intercurrent pulmonary affections." Dr. Broadbent is so good an observer, and my conclusions are so generally in accord with his own, that I should hesitate long before expressing a contrary opinion, but my experience of a large number of cases on this point is very decided. I have found that whilst in the early stages of mitral regurgitation, and until the right heart has become obviously dilated, or unless some complication has occurred, the pulse is regular, in mitral stenosis, though there are some exceptions, it is usual to find irregularities even in the very earliest stages, and when compensation is to all intents perfect. Such irregularity is seen in the sphygmogram as a repeated pulsation recorded in the down-stroke before the base-line is reached. I have so repeatedly seen this phenomenon that I have said, when one observes it in a case in which serious cardiac symptoms do not exist, mitral stenosis should be suspected. Moreover, it seems that such disturbance of rhythm is *primâ facie* probable when one considers the mechanical impediment to the due performance of the function of the left auricle. When in mitral stenosis compensation manifestly fails, the signs and symptoms are even more serious than in mitral regurgitation; the gradual oncome of dropsy is exceptional, but dyspnœa is very severe, pulmonary complications are more violent, and the venous engorgement of viscera, especially of the liver, is more pronounced. It must, moreover, be borne in mind that the physical conditions which result from mitral stenosis differ very considerably from those which attend mitral regurgitation. In mitral stenosis the left ventricle is not dilated, nor hypertrophied, nor of necessity physically altered; the right cavities, on the other hand, are engorged and dilated, and there is an increasing tendency to regurgitation through the tricuspid orifice; the left auricle is over-full on account of the obstruction in front of it, its cavity is dilated, and its muscle either hypertrophied or wasted. I have seen the muscular wall of the left auricle in one case as thick as that of a normal right ventricle, and in another as thin as a visiting card and containing no adequate muscle fibre at all. From these considerations it follows that in mitral stenosis the requisites for a restoration of compensation are an enhanced power of the right ventricle, whereby the blood may be driven through the lung into the left auricle, and a firm-walled and adequately muscular left auricle, allowing sufficient tension within its cavity and sufficient muscular contractility to drive the blood through the obstructed orifice into the ventricle. Whilst, therefore, in regurgitation there is a call upon us to increase the force of the muscles of *both* ventricles, in stenosis the necessity is to increase the force of the *right*. It does not follow that the problem is easier of fulfilment in the latter case; it is sufficient for us at the present that the conditions are not identical. We will now inquire as to the efficiency of special drugs in promoting compensatory action in mitral stenosis.

1. *Digitalis.*—It is a matter of experience with others as well as with myself that digitalis may not be given in mitral stenosis with the same advantage as in mitral regurgitation. It may often do good if given for periods of a week, with intervals of at least equal length, but it should always be used with caution. In many cases, instead of promoting regularity of the heart's action, it notably increases irregularity. On this point I entirely concur with Dr. Broadbent.[1] The search, therefore, for a more satisfactory therapeutic agent in such cases is very desirable. We will proceed to examine the evidence in the cases treated by—

2. *Convallaria Majalis.*—We will consider first the effect on excretion of urine as shown in the following table:—

TABLE V.—*Showing daily amounts of Urine, in ounces, in cases of Mitral Stenosis, treated by Convallaria Majalis.*

Case.	Before convallaria.	During convallaria.	After convallaria.
1	60>30<61>15>30	31<52>28<66>50>30	—
2	—	20, 15<55>40<60>80 <115>100>50>4	14<34<42<92
2a	Readministration	85<115>75	85>65
3	—	28<40>25<52>20 <28>30	30>16<30>20
4	22<35>25	22, 38>35>25	25<40, 50 >35, 30
5	—	20<42>28<60>34	—

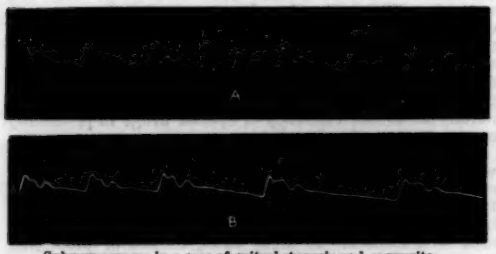
It will be observed that in these cases of mitral stenosis convallaria exercised a pronounced diuretic effect. In all cases the quantity of urine was augmented during its administration. The influence is markedly shown in Case 2, wherein the daily amount excreted rose from 20 to 115 ounces, and on readministration from 85 to 115 ounces. After the maximum diuresis in this case there was a very scanty excretion—4 ounces. In most of the cases there was no oliguria at the end of the treatment, but the evidence here, as well as that in the cases of mitral regurgitation, renders it probable that the drug may, after the maintenance of a maximum blood-pressure in the renal arterioles, so constrict these as to impede the blood-supply. It will be well, therefore, with convallaria, as with digitalis, to suspend the administration at intervals. It is a fair conclusion that convallaria is an important diuretic in cases of mitral stenosis, comparable in its effects with caffeine in mitral regurgitation, and that its effects in this direction are more pronounced in the obstructive than in the regurgitant lesion. We will now consider the cases of mitral stenosis in reference to the

Effects of convallaria on the pulse and respiration.—In one case the pulse-rate progressively fell under ten-grain doses of the convallaria extract from 112 to 80, 76 and 72, and after suspension of the drug rose to 92, to again fall under digitalis to 70. In another case the pulse-rate which under ten-minim doses of tincture of digitalis had increased from 99 to 110, decreased under convallaria to 102 and 64, rising after the suspension of the drug to 72 and 120. The sphygmographic evidence is more valuable and more conclusive than the mere observation of the rate of the pulse. In a third case in which the conditions were very severe,

[1] Cf. "Mitral Stenosis." International Journal of Medical Science, January, 1886, p. 85.

there being tricuspid regurgitation with pulsating liver, the extreme irregularity of the heart was greatly altered for the better. The sphygmogram taken in the early period shows great irregularity and full dicrotism (Fig. 4, A); the second trace, taken after convallaria extract (ten-minim doses) for thirteen days, and tincture of digitalis for a subsequent thirteen days, shows a slow and almost regular pulse of fair tension (Fig. 4, B). The increase of

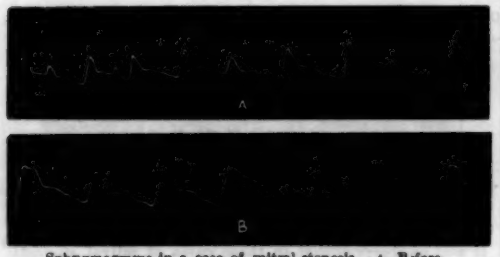
FIG. 4.



Sphygmograms in a case of mitral stenosis and regurgitation, with tricuspid regurgitation, treated by extract of convallaria, and subsequently digitalis. A, Before treatment; B, after treatment.

arterial tension is well shown in another series of sphygmograms. Before the administration of convallaria the trace shows a scarcely perceptible tidal wave; there is great irregularity in time and volume, and there are frequent repetitions of the systole shown in the downward-sloping portions (Fig. 5, A). After six days, tincture of convallaria

FIG. 5.



Sphygmograms in a case of mitral stenosis. A, Before the administration; B, after six days' treatment by twenty minims of tincture of convallaria taken three times a day.

in twenty-minim doses being administered three times a day, the tidal wave is seen to be much more marked, the summit of the trace being broadened, and there is much less irregularity (Fig. 5, B). The breathing was improved under the drug in nearly all the cases; in one case there was severe dyspnœa, which lasted during a fortnight (in this case bronchitis and emphysema existed in marked degree), but afterwards there was gradual improvement, and the patient left the hospital free from all distressing symptoms. It was evident that in these cases the drug acted very favourably. Only one case died in hospital; in this pericarditis and severe pulmonary complications were manifested; the patient improved during the time that convallaria was administered, and the temperature was reduced from 101° to normal, but after the omission of the convallaria the temperature rose to 103°; the patient died suddenly after having for a time considerably improved.

So far as I have been able to judge, convallaria compares favourably with caffeine in the treatment of mitral stenosis. In one case a girl, aged seventeen, in whom there existed tricuspid regurgitation in addition to mitral stenosis and regurgitation, the quantity of urine rose from a maximum of 30 oz. before the administration of caffeine to a maximum of 59 oz. during its administration, and on re-administration from 30 oz. to 54 oz.; but in regard to the pulse and respiration there was no perceptible influence. In another case of stenosis with œdema, the daily urine rose only from 36 oz. to 40 oz., and here also the pulse and respiration were not perceptibly influenced; the patient died. I was not encouraged to repeat the treatment by caffeine in the cases of mitral stenosis whilst I obtained such good results with convallaria; but in cases of this affection manifesting œdema or ascites, where a diuretic effect could not readily be obtained by convallaria, I should administer caffeine in addition.

My general conclusions are that caffeine is an agent of great value in the treatment of cases of mitral regurgitation, especially those in which there is much dropsy; and that convallaria, though manifesting no very favourable influence in cases of mitral regurgitation, except as an occasional substitute for digitalis, is of considerable therapeutic importance in mitral stenosis.

THE

ANTISEPTIC TREATMENT OF WOUNDS.

BY SURGEON-MAJOR W. GRAY,

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(*Concluded from page 584.*)

CASE 23.—Male, aged twenty-five. Amputation through left knee-joint for railway smash of the leg. Operation, Jan. 10th, 1884. Dressings as before. No rise of temperature. Stump opened up on the seventh day. Firm union. Patient discharged well on Feb. 9th.

CASE 24.—Male, aged thirty-five. Amputation below right knee for local traumatic gangrene (dry). Operation, Jan. 22nd. Dressed as before, except that several thicknesses of boric lint were used instead of cotton, the first layer being wrung out of the sublimate solution. No rise of temperature. Dressings removed on the seventh day. Good union. Patient discharged well on Feb. 9th.

CASE 25.—Male, aged twenty. Amputation above right wrist for machinery crush of the hand. Operation, Jan. 28th. Dressings as in preceding case. Temperature rising, they were taken off on the fifth day, when suppuration was seen to have occurred. This extended up the limb nearly to the elbow. Patient made a good recovery, however, and was discharged well on March 5th. This amputation was done at night; the injured limb was very dirty and difficult to clean, and the tendons were much "pulled." It is probable therefore that the parts had not been sufficiently purified before applying the dressing; hence its failure.

CASE 26.—Male, aged twenty-two. Amputation at middle of left arm for sarcoma of the forearm. Operation, March 8th.

CASE 27.—Male, aged twenty-two. Amputation at upper third of right forearm for machinery crush. Operation, May 9th.

CASE 28.—Male, aged fifty-two. Amputation just below left knee for mycetoma of foot. Operation, May 9th.

CASE 29.—Male, aged forty. Amputation at middle of left leg for papillomatous growth affecting the stump of a former Syme's amputation, performed for gangrene following snake-bite. Operation, May 16th.

CASE 30.—Male, aged thirty. Amputation at middle of left leg for spontaneous gangrene of the foot. Operation, May 28th.

CASE 31.—Male, aged thirty-five. Secondary amputation just below right elbow for machinery crush. Operation, June 6th.

The dressings in these six cases were alike. The stump was washed with sublimate solution, was then enveloped in a thick layer of dry boric cotton sprinkled with iodoform, over this more cotton, then oakum, and lastly a bandage tightly applied. No waterproof nor elastic band was used, as it was thought possible that some of the failures amongst the earlier cases were due to the retention of so much moisture around the stump. This omission was fully justified by the results, the flaps in every case having united by first intention and the stumps healing without a trace of suppuration. The dressings were quite dry and clean when removed. The patients were respectively discharged well on March 22nd, June 2nd, June 21st, June 3rd, June 13th, and July 2nd.

CASE 32.—Male, aged eighteen. Amputation at middle of left thigh for traumatic gangrene following a tramcar smash of the leg and knee. Operation, June 21st. Dressing as last described. The condition of the tissues, especially part of the anterior flap, was not altogether satisfactory.

Temperature rising, the dressings were partly taken off on the third day, when some inflammation was seen to be in progress, with considerable serous discharge. The wet dressing was removed, the wound cleansed, and fresh cotton was applied, as at first. This remained undisturbed for six days longer, and on removal the flaps were found fairly well united. A little sweet pus exuded from the drainage-tube. The patient was excessively restless and troublesome, with the result that a day or two later the flaps separated to a slight extent, causing considerable delay in the healing process. He eventually did well, and was discharged cured on Sept. 13th.

CASE 33.—Female, aged thirty-six. Amputation at middle of left arm for advanced disease of elbow-joint. Operation, June 26th.

CASE 34.—Male, aged twenty-eight. Amputation at middle of left forearm for machinery crush of hand and wrist. Operation, July 15th. Dressings as before. Results perfect in each case. Union by first intention.

In the latter case no sublimate solution was used, the face of the stump previous to closure being merely wiped dry with a purified sponge. Patients discharged well on Aug. 7th and July 28th respectively.

CASE 35.—Male, aged thirty. Amputation at middle of left thigh for disease of the knee-joint. Operation, Aug. 24th. Patient very anæmic and emaciated, also phthisical. Dressings as before, including sublimate solution. Removed on the eighth day, when fair union was found. The stump healed well, without suppuration, and the patient left hospital, much improved in general health, on October 10th.

CASE 36.—Male, aged sixty. Amputation at middle of right arm for disease of the elbow-joint. Operation, Sept. 20th. No sublimate solution used in this case. The surface of the flaps was first dusted with iodoform, and the dressing then completed as before. The temperature rising, on the sixth day the stump was exposed, when the flaps were found separated and their tissues distended with blood; no sign of putrefaction, however. The blood was cleared out, additional drainage-tubes were inserted, and the parts were redressed with iodoform and dry wood-wool. Three days later a slight erysipelatous blush was noticed about the shoulder, but it soon disappeared. The swelling of the flaps quickly subsided, and by the fifteenth day union, without suppuration, was complete. Patient discharged well on Oct. 10th.

CASE 37.—Male, aged twenty-two. Amputation at middle of left leg for spontaneous gangrene of the foot. Operation, Oct. 7th. Dressing: sublimate solution, iodoform, and boric cotton. Result perfect; union by first intention. Patient discharged well on Oct. 23rd.

CASE 38.—Male, aged twenty-five. Amputation at middle of right leg for chronic ulcer and deformity. Operation, Oct. 19th. No antiseptic lotion was employed in this case. The dressing consisted of dry absorbent cotton, dusted with salicylic acid, and the usual oakum and bandage. Union, without suppuration, was complete in twelve days. The salicylic acid in the cotton, however, caused severe excoriation of the skin with which it came into contact, and this, together with a subsequent attack of intermittent fever, delayed the patient's discharge from hospital till Dec. 17th.

CASE 39.—Male, aged twenty-eight. Amputation of right index and middle fingers for machinery crush. Operation, Oct. 27th.

CASE 40.—Male, aged fifty. Disarticulation at left knee for senile gangrene of the foot. Operation, Nov. 1st.

CASE 41.—Male, aged thirty. Amputation below left knee for mycetoma. Operation, Dec. 13th.

Dressings as already described, including sublimate lotion. Union by first intention in each case. Patients discharged cured on Nov. 21st, Dec. 8th, and Jan. 3rd, 1885, respectively.

CASE 42.—Male, aged eighteen. Amputation at lower third of right leg for mycetoma. Operation, Dec. 18th. The stump was washed with sublimate lotion, and after being sutured and dried was thrust into a long narrow bag half filled with dry wood-wool sprinkled with iodoform. While the bag was held against the face of the stump the leg was packed round with additional wood-wool, and the whole was then firmly fixed in its place with bandage and adhesive plaster. The result here was quite as successful as in previous cases; the flaps united by first intention, without a trace of suppuration. Patient discharged well on Jan. 22nd, 1885.

It will not fail to be noticed how much larger has been the proportion of successful cases in the latter half of the series, as compared with those of the first, and this greater success appears to coincide substantially with the disuse of the waterproof covering, and with the adoption of drier and thicker absorbent dressing. Accurate adaptation of the flaps I regard as of great importance. I now always mark them out with a scalpel, in order to ensure evenly cut edges, and when the skin has retracted they are completed by transfixion in the usual way. My experience has taught me, too, that antiseptic applications direct to the wound are in many cases unnecessary. I allude especially to those cases where the tissues are perfectly healthy. Still they do no harm, and, by way of making "assurance doubly sure," may be employed in every instance. All I mean to convey, however, is that we can in a certain class of cases obtain as good results without as with them, provided we attend carefully to other precautions. I never under any circumstances use the spray. Moisture in any shape or form I look upon as one of the most fertile sources of failure. Our whole efforts should be directed to preserving both the wound and the dressing in the driest condition possible. The essentials, then, of my present procedure are cleanliness, infrequent dry dressing, free drainage, accurate adaptation of flaps, and rest. Under the last mentioned, pressure by means of bandages may be included. To prevent putrefaction of bloody or serous discharge I prefer to have the dressing medicated with some unirritating stable material. Of all I have tried, boracic acid or iodoform is decidedly the best. The latter is the more expensive, however; hence I have found boric cotton more convenient to use. In order to press the flaps well together, and thus lessen or avoid exudation, I draw the bandage as tight as possible; the thick elastic pad of cotton and oakum underneath will always prevent it from being drawn too tight. So effectually does this answer its purpose that I have on more than one occasion found the original dressing, on first exposing the stump, almost perfectly dry and clean. Oakum, besides being more or less antiseptic, keeps the cotton together, and enables us to save the use of the latter to a certain extent as well. Wood-wool, although a most excellent absorbent dressing in suitable cases, is somewhat unmanageable in amputations. Made into pads, it does not fit closely enough; and employed loose, it is difficult to apply, and is inclined to get lumpy or become displaced. To ensure complete rest of the parts while the healing process goes on, the limb, if it be a lower one, is fixed in a heavy box splint and well packed round with cotton. Should the upper limb be operated on, the stump is securely fastened to the side of the trunk, with plenty of cotton interposed and placed around. The cotton packing, as well as the thick dry dressing, preserves the normal heat of the parts, a matter which I believe is essential to rapid and perfect union. Lowering of the temperature by wet dressing, exposure, or cold applications tends, I am convinced, to delay or prevent union by first intention. During the progress of the case the thermometer is used morning and evening; if the temperature remains normal, or does not rise beyond 99·5° F. occasionally, all is going on well, and the original dressing need not be disturbed sooner than the ninth or tenth day. When removed the flaps will be found firmly united. The drainage-tube may now be withdrawn, its track gently syringed out with carbolic or sublimate lotion, a little iodoform introduced, and the stump redressed with oiled lint or with boric cotton, taking care to sprinkle either with iodoform. Some of the unsoiled boric cotton from the original dressing will do quite well enough. A pad of oakum and a bandage complete the second dressing. This may remain on for four or five days longer, and when removed the track of the drainage-tube will have closed. The sutures may now be taken out, the stump being practically healed. Should the temperature, during the course of the second or third day, rise to 100° or beyond, and remain so, the antiseptic dressing has probably failed and must be removed, the stump being treated in the ordinary way, or, better still, with wood-wool and iodoform. Before doing this I always administer quinine, as the fever may be of malarial origin, and not traumatic. In more than one instance this has proved to be the case. The precaution I note here is, however, scarcely necessary, except in a climate where malaria prevails.

This paper has run on to such a length that I can hardly do more than mention that the treatment, on the same principles, of other surgical and of accidental wounds has met with nearly equal success. In the former class of cases,

especially where there is much areolar tissue—say, the axilla after removal of a large tumour,—the surface, after bleeding has quite ceased, is well rubbed over with iodoform, closed, and dressed with boric cotton and oakum, as described above, and the result is all that can be desired. In the operation for the radical cure of hernia, or after herniotomy, this treatment of the wound has been attended with remarkable success, union by first intention being the rule. Accidental lacerated and incised wounds are first thoroughly cleansed with carbolic lotion, then washed with sublimate lotion, iodoform is rubbed in, and the dry dressing, either boric cotton or wood-wool, applied. Sutures are not used, no matter how widely the wound may gape. The first dressing may be left on for twelve or fifteen days, or even longer, provided the temperature keeps down. In compound fractures the preliminary cleansing must be very carefully done before the sublimate lotion and iodoform are applied. The latter lotion should be forcibly injected with a syringe into every crevice of the wound. I find that for this purpose a Higginson's enema syringe is the most convenient; a continuous stream of lotion may be easily sent by it up the sheath of a tendon or, in case of amputations, between the flaps after the sutures have been inserted. The dry dressing in compound fractures requires to be very thick and to be bound on firmly; the limb is afterwards fixed on the appropriate splint. Small or clean-cut wounds under this method of treatment will be found closed on removal of the dressing, and larger ones with a healthy granulating surface.

Further experience will doubtless lead to modifications in the mode of dressing wounds I at present employ, and I think the tendency will be towards greater simplicity. When I first began I adopted most elaborate precautions as regards the disinfection of every instrument and material used in the operation; but as time went on I gradually discarded these one after the other; while my results, so far from suffering, became, on the contrary, better and better. I have come to the conclusion, therefore, that very many of the precautions we are advised to follow by writers on antiseptic surgery are wholly unnecessary, and that they are a hindrance rather than a help.

NOTES ON DIGESTIVE FERMENTS.

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II.—ON EXTRACT OF MALT IN THE TREATMENT OF WASTING DISEASES.

EXTRACT OF MALT is of such inestimable value in the treatment of all wasting diseases, both of adults and children, that any method which will help to secure the employment of good and reliable specimens must of necessity be of interest. There seems to be a general consensus of opinion as to its utility, but few people care to take the trouble to investigate its action or distinguish between good and bad preparations. That some extracts of malt are active whilst others possess little or no diastasic power is generally recognised. In the early part of last year, whilst a member of a Hospital Drug Committee, I had occasion to make some experiments on the subject, and certain results were arrived at which are, I think, of practical importance.

In examining comparatively different extracts of malt, it is of course essential that the investigation should in each case be carried out in exactly the same way. The slightest modification will introduce errors and nullify the result. In these observations I always used the same materials and the same apparatus. The experiments were made at the same time of the day, and as far as possible under identical circumstances. Nothing is more important in an inquiry of this kind than to record every step with the most minute detail. In the first place it should be stated that the specimens were one and all ordinary commercial articles—that is, they were bought at a shop, and were not selected samples obtained at an exhibition or from the manufacturer for the purpose of analysis. Precautions were taken to ascertain that they were not "old stock" which had been lying about exposed to alternations in temperature and other disturbing causes. They were probably all of comparatively recent manufacture, but on this point the evidence is not conclusive, as there is usually no date on the label or other indication as to when they were made. Those manufactured abroad may have been older than those prepared in this country, but I do not think this a point of any importance or could in any way invalidate the result. It is hardly necessary to say that care was taken to see that the bottles had not been tampered with, and that they were in their original wrappers or cases. The starch used in testing was always the same and came from the same stock. It was a pure white starch carefully dried. I purchased it for potato starch, but on examining it under the microscope and measuring the cells, came to the conclusion that it was Maranta arrowroot, an opinion which was confirmed by comparing it with known specimens, and with starch expressly prepared from potatoes. As will be presently seen, Maranta arrowroot is the best adapted for all comparative observations on the activity of extract of malt. The method of making the starch solution is of some importance. Ten grammes of the arrowroot were weighed out and mixed with a little cold water. This was then stirred into ten ounces of boiling water in a beaker over a gas burner. When the mixing was complete the beaker was removed from the flame and placed in a vessel of cold running water until the temperature fell to 40° C. It was kept constantly at this temperature during the remainder of the observation. It is not meant that the temperature was absolutely constant, but by careful watching it was found not difficult to prevent it from falling below 39° or rising above 41°. The quantity of extract of malt used in each experiment was one gramme. It was weighed out in a clean porcelain capsule, and after being mixed with a little water was poured into the starch decoction. The mode of testing was simple enough. Twelve test-tubes were arranged side by side in a rack, and each was filled about two-thirds full with distilled water, to which was added a drop of tincture of iodine, made according to the following formula: iodine, two parts; iodide of potassium, four parts; water, 250 parts. The drop of tincture of iodine falls to the bottom of the tube, leaving the upper part colourless. Every five minutes, and towards the end of the experiment every two minutes, a drop of the starch and malt mixture was taken up by a clean glass pipette and allowed to drop into one of the test-tubes, which was then inverted for a moment and replaced in the rack. At first, of course, a blue colour was produced—the starch reaction. Then, after a time, the time varying with the activity of the malt, the blue gave place to purple and the dextrine reaction was obtained. After a time, again, this ceased to appear, and the solution remained colourless, or, at the most, assumed a faint yellow tinge, indicating that all the starch had been converted into maltose. It is a little difficult to decide at what moment exactly the colour goes, but if the observations are always conducted by the same individual in exactly the same way and by the same light the error of observation cannot be very great. There is another method of judging the colour by throwing a drop of each solution on a white porcelain plate and allowing them to run together. I tried this plan, but do not think it better than the method described. By the test-tube plan one has the advantage of looking down on a column of liquid, so that even a slight tinge is readily appreciated.

There are certain precautions which must be taken to ensure good and reliable results. For example, it must not be supposed that the quality of starch employed in conducting these investigations is a matter of indifference; in fact very much depends on the starch. Starch bought in the shops is commonly adulterated, and is often artificially coloured with indigo, carmine, and other materials. It is obvious that the presence of a chemical substance would interfere with or perhaps even destroy a body so susceptible to the action of external influences as diastase. Even apart from the question of adulteration, the kind of starch makes a great deal of difference. On one occasion I was trying some extract with a new specimen of starch, and was much surprised at getting very little action. I knew the malt was not destitute of activity, for I had previously tested it with the arrowroot starch. I microscoped the new specimen, and found that it was maize starch. This led to a comparative examination of the two kinds of starch, and I found that an extract of malt which would convert into maltose a certain quantity of arrowroot starch in eight minutes took forty minutes to transform the same quantity of maize starch.

This induced me to try different varieties of arrowroot. I obtained authentic specimens of Bermuda Maranta arrowroot, of Canna arrowroot or tous-les-mois, and of Natal arrowroot, and found that they were all acted on by the extract of malt in exactly the same time, there being no difference between them. The next observation was made with a pure potato starch prepared expressly for the purpose, and it was found that the extract of malt which took eight minutes to convert the arrowroot took ten and a half minutes to convert the potato starch. This same specimen of extract of malt took thirty minutes to convert the same quantity of a very fine and pure wheat starch, the identity of which was confirmed by microscopic examination. Maize starch with the same extract took forty minutes, and rice starch ninety-five minutes. The different starches may be arranged in order as follows—

1. Bermuda Maranta arrowroot ...	8	minutes.
2. Canna arrowroot (tous-les-mois) ...	8	"
3. Natal arrowroot	8	"
4. Potato starch...	10½	"
5. Wheat starch...	30	"
6. Maize starch	40	"
7. Rice starch	95	"

That this difference of solubility in different kinds of starch exists is, I think, not generally known. Its practical importance with regard to the question of infant feeding, especially in the treatment of wasting diseases, cannot be over-estimated. It is possible, too, that it might be utilised as a test to differentiate some forms of starch. The statements made in papers respecting the action of extract of malt on starch are obviously of little value unless the kind of starch employed is mentioned.

The temperature at which the observations are made is of course a matter of the utmost importance. An elevation of a few degrees makes an enormous difference in the results. These observations, as already stated, were made at 40° C. It would, perhaps, have been better to have fixed on 38° as being nearer the temperature of the body, but practically 40° is very convenient. The thermometer was suspended in the fluid, which was frequently agitated. Had the observations been made at, say, 60° C., very different results would have been obtained.

There is a little point in connexion with the iodine test to which it is necessary to pay attention. The water in the test-tube must be cold. On one occasion, by accident, I used warm distilled water as it came from the still, and to my astonishment found that it gave no reaction with the starch. If the blue reaction be obtained with cold water, it disappears on warming the test-tube. Whether it returns on allowing the liquid to cool depends on the quantity of the reagents employed. If a very dark colour were produced, it would return on cooling; but if the colour were a faint blue, it would not reappear, although the addition of a little more iodine would bring it back. The presence of alcohol in any quantity also interferes with the reaction; in fact, iodide of starch is a most unstable body, even if it be a true chemical compound, which is doubtful.

I examined in all eleven specimens of extract of malt, the list including those most commonly used in this country, on the Continent, and in America. Of the eleven specimens there were only two which under the conditions I have indicated would transform *completely* all the starch in less than thirty minutes, and of these two one was more than three times as active as the other. Many of the specimens were of very poor quality and possessed little or no diastasic power. The extracts of malt usually supplied to hospitals are very poor in quality. At one institution I found that the committee was paying cheerfully £50 a year for an article which was not worth as many pence. It had evidently been concentrated in an open pan at a very high temperature. The colour of the extract is often said to be a good test of the quality; but it is not, for one of the best specimens I examined was very dark indeed. The liquid preparations were mostly poor; one, although it bore the name of extract of malt, was simply an ordinary beer and had little or no power of transforming starch. The presence of foreign substances is very common in inferior qualities of extract of malt. It is best to give the extract alone, and the addition of straw, chips, and sand is rarely an advantage. One preparation which was very fluid was examined for glycerine, but none was found; it had probably been taken out of the vacuum pan before the concentration was complete. On allowing it to stand for a few days, it gave off a peculiar odour and was evidently undergoing fermentation. It might be supposed that specimens of extract of malt would deteriorate by keeping, but I do not know that such is the case. Some specimens, on the contrary, seem to improve by keeping—a point which I have determined experimentally. For example, I examined a very good specimen, and found that it transformed a certain quantity of starch in twelve minutes and a half. A fortnight later I examined the same specimen under exactly the same conditions, and found that it accomplished the task in seven minutes. This improvement was probably due to a process of slow fermentation, in which more diastase was produced, or possibly a little lactic acid was formed, the presence of which in minute quantities is said to increase the activity of the ferment. It is a rule with some makers, I am told, to add a small quantity of salicylic acid to each bottle to prevent fermentation; but the custom is a bad one, for it impairs and ultimately arrests the action of the diastase on starch. It was thought well to examine a few specimens of malt-flour by the method already indicated. They were all active, but not equal in activity to the best extracts.

That the method described is not the best possible that could be devised I am quite prepared to admit, but it is the method best adapted to the requirements of busy medical practitioners. With complex apparatus and all the facilities of a chemical laboratory one might arrive at conclusions that might be more absolutely accurate, but for comparative purposes this simple method is reliable. As a proof of this I may mention that my colleague, Dr. Dupré, was kind enough to examine five of the best of these specimens very carefully, and he put them in the same order that I did. The clinical method is so simple and occupies so little time that every doctor should make his own examinations and assure himself that his patients are getting what he prescribes. If he will do this, he will find himself in possession of a powerful therapeutic agent and one of the best remedies for nearly all wasting diseases.

Weymouth-street, W.

ON THE TREATMENT OF SYPHILIS.

BY JAMES WILSON, M.D.

(*Concluded from page 586.*)

THE third and last indication in the treatment is that the inunction be carried out long enough. As our task consists in the healing of symptoms and as much as possible averting relapses, the earlier the syphilitic person is brought under mercurial treatment, the milder will be the course of the illness. The subject, therefore, of an induration should at once be placed under a course of mercury, the best form of which is the inunction, rather than wait for the setting in of secondary symptoms; if this is done the mysterious sting of the disease is broken off, and unquestionably the relapses are less in severity and appearance. In a case, therefore, of primary syphilis at least from forty to fifty rubbings should be given without a break. Nothing is more detrimental to the good effect of the mercury than a break, whether this arise from causes incidental to the mercury—such as mercurial diarrhœa, stomatitis, &c.—or dependent upon the patient himself; and nothing is more to be deprecated than the custom sometimes adopted of giving more ointment if inunction be employed, or calomel if the mercurial bath (of which I shall presently speak) be used, to make up for lost time, the result being that diarrhœa, colic, or some intercurrent mischief happens which may entirely prohibit any form of mercurial treatment being adopted, the very object being defeated that was hoped to have been gained. Generally speaking, after from seven to ten rubbings the good effects of the mercury begin to show themselves; there is now, perhaps, slight puffiness of the gums, which does not materially increase during a full course if the mouth-wash is steadily used, and seldom does the sponginess of the gums amount to more than slight uneasiness if the jaws are quickly snapped together or a hard crust be bitten. The only untoward incident I have noticed during the cure by inunction, where all goes well, is that patients sometimes complain of inability to sleep at night; they are restless, in no pain, but unable to get sleep. In such cases an opiate generally suffices to overcome the evil and effect the desired end. I

seldom stop the rubbings unless the irritability continue, or diarrhœa or some intercurrent trouble arise to preclude the continuance of the mercury. One of the first indications we have of the good effect of mercury is an increase in the body weight, which begins to show itself during convalescence and while the syphilitic poison is being eliminated through the various excretory organs of the body. This increase in weight is a point never to be lost sight of during a course of mercurial treatment, because when the normal weight of the body has been reached, or when the weight become stationary, there is no good in pushing the drug beyond eight or ten further rubbings if the inunction treatment is being employed, as we have attained all the good we are likely to get from the present use of the drug, and we had better wait for a little time before resorting again to treatment if only an inefficient course of treatment has been obtained.

Another point of importance after mercurial treatment, no matter whether internal or external, is the use of iodide of potassium in small doses, and entirely with the view of keeping up the good effects of the mercury, which it does in no small degree. A patient so treated, who has had an efficient course of rubbings in the manner that I have described, may of course develop subsequent symptoms, but unquestionably they will be less severe than when given by the mouth; and when the patient has had a full course of, say, from ninety to a hundred rubbings, whether taken at once (which is best) or at intervals, it is very exceptional to find him the subject of further relapses, at any rate for a long time, a period of immunity being afforded him for years, and possibly for life. Can we say this of the other forms of treatment? I think not. And I am sure, speaking from a large experience of cases treated in all climates and by all methods, as well as from the recorded testimony of some of the first syphilists in the world, that if the inunction treatment such as I have here advocated, and which I might perhaps, for want of a better term, call the "modern inunction treatment," were more resorted to in this country than it is, bad secondary and tertiary lesions of the viscera, bones, brain, and nervous system would be things almost unknown. I am aware that in private practice difficulties arise in carrying out the treatment efficiently, but difficulties arise in the treatment of all syphilitic patients. One of the greatest is the inherent prejudice (happily dying out, I am glad to say) of the use of mercury in any form; and I find patients readily submit to the inunction when told that it is the least injurious form of giving the drug. And the long-standing complaint against this method that it is dirty entirely dies out if the system I have advocated be carried out, which only allows of one portion of the body being anointed at a time, and this done thoroughly and efficiently.

Another useful form of administering mercury is the calomel bath, not, however, employing ordinary calomel for the purpose. This, where it is necessary (and the inhalation of the vapour is always to be encouraged, if possible, to the extent and manner hereafter described), is far too irritating. Mr. Henry Lee was the first, I believe, who called attention to this point and advocated the use of calomel which has been sublimed, thereby getting rid of any free hydrochloric acid and rendering the calomel vapour non-irritating and capable of inhalation without the least discomfort. Mr. Lee also, I think, was the first to call attention to the amount of water used in the preparation of the bath, and which is of the utmost importance, otherwise a sweating bath (if too much water is used) is produced, and not only is the very object defeated that was hoped to be gained, but a patient so treated is made infinitely worse and more debilitated. Then, again, the external covering to be worn while taking the bath must not only envelop the body and go round the whole apparatus, but must be made of such material that it will form a suitable night-dress for the patient. A most excellent covering for this purpose, made of moleskin, can be obtained from Mr. Lowe, of Stafford-street, Old Bond-street, London, who supplies the whole apparatus complete, including bath, &c., at a small cost. In this cloak there is a slit through which the vapour rises, passing in front of the face, so that a minute's inhalation of the vapour can easily be obtained as the vapour ascends; then by closing the slit in the cloak the further escape is prevented; upon drawing out the cane hoop which goes round the shoulder after the bath is finished, and tying the string round the neck, a complete night-dress is formed, which has the additional advantage of allowing the mercury which has been deposited upon its interior being brought into contact with the skin, now rendered moist by the bath, and so perhaps allowing a further portion of the sublimed calomel to be absorbed. In general it is sufficient if the patient inhale for one minute in the five, the vapour thereby making three minutes as the full time for internal inhalation, supposing, as is usual, the bath takes about from fifteen to eighteen minutes for the complete disappearance of the calomel and water. Of course in affections of the mouth and throat longer time may be allowed. Patients can take these baths nightly without inconvenience. I have frequently prescribed from sixty to eighty without a break, and even a hundred; indeed, it is surprising, in this form of mercurial administration, to see the number of baths patients can take without causing the least disturbance to their systems and digestive organs, and with, I need scarcely say, benefit to their disease, provided the precautions above indicated are taken as to water and sublimed calomel. If this bath be used during the stage of efflorescence in a case of syphilis where inunction cannot be employed, and then the latter resorted to on the disappearance of these symptoms, we have, in my opinion, the most perfect form known at present of treating syphilis.

Lastly, there remains the hypodermic use of mercury and the modification of the Zittman treatment, in which no mercury is employed. As to the former, though not much resorted to in this country, it is extensively so on the Continent, and is unquestionably a very valuable form of administering the drug when it is desired to get the system rapidly under the influence of mercury; and I know no better form than one-sixteenth of a grain of the perchloride dissolved in about twenty-five minims of distilled water, and given daily in two injections, to which five minims of glycerine have also been added. Great care must be taken in administering the injection, a sufficiently long needle being employed to allow of its point being well carried into the subcutaneous fat, otherwise what is almost certain to take place will be a troublesome slough, in this respect acting like chloroform &c.; and a part of the body should be chosen, such as the flank, where less pain is felt. As to the modified form of the Zittman treatment, in which no mercury is given, it appears suitable for cases where mercury cannot be given—such, for instance, as albuminuria, not having its origin in syphilis or dependent upon that disease, which, far from precluding, would probably necessitate the use of the drug in a very careful form. However, I cannot say that my experience of this mode of treatment is large, and what I have had is not sufficiently encouraging to say more than that I believe it often acts well as a stop-gap, but seldom effects a cure. Possibly patients may get immunity from further trouble for a little time who have gone through this treatment, but I should entertain grave doubts as to their being cured of the disease; and I should certainly never submit a patient to such a course of treatment if I could possibly employ any form of mercurial administration.

In conclusion, one word as to the use of iodide of potassium. Unquestionably this is a most valuable drug when regarded in its twofold light—viz., that of the employment in small doses to keep up the good effects of the mercury after a course of the latter, and to which I attach the greatest importance, or the use of large doses to procure its own and special action; and strong as are the advocates that it cannot be regarded as a curative agent, but simply remedial and temporary, it cannot but go hand in hand with mercury in the disease, and ought not, I think, be separated from this drug in the successful treatment of syphilis; sooner or later it is almost sure to be required, and there are times and seasons in the progress of this disease when its utility outweighs that of mercury, though I would not regard it as an ultimate curative agent in the same light as mercury. I do not purpose entering upon the heap of vegetable remedies and others advocated and now in use amongst the various tribes of the world. I can only regard them as adjuncts at the best; and even sarsaparilla, except in large doses, I have found useless as an adjunct.

ON the 29th ult. twenty-two persons were fined at Leicester for non-compliance with the Vaccination Acts. There are now in the town about 11,000 defaulters under the Acts not yet proceeded against, in addition to the several thousands who have been already dealt with.

ANOTHER CASE OF

CONVULSIONS DURING PREGNANCY TREATED SUCCESSFULLY BY SUB-CUTANEOUS INJECTIONS OF PILOCARPINE.

BY P. HORROCKS, M.D. LOND., B.Sc., M.R.C.P.,
ASSISTANT OBSTETRIC PHYSICIAN TO GUY'S HOSPITAL.

ON August 1st, 1885, I was called in consultation with Mr. Ryan (who was acting for Mr. Leftwich of Newcross) to see a patient in convulsions. She was twenty-three years of age, and single. When fifteen years of age she was in Guy's Hospital under Dr. Braxton Hicks, and was operated on for an imperforate hymen. Since then she has menstruated regularly until the end of October, 1884, when the menstrual flow ceased. She has had scarlet fever three times; also fits when a child. Has always suffered from pain and "weight" in the head. Twelve months ago she had a fit, during which she was unconscious two or three hours, and was very violent (hysteria?). She is subject to hysterical attacks. On July 29th she noticed that her legs were much swollen; she had a fit on this day and became unconscious. It was three days later that I saw her, when I found her unconscious and in strong convulsions; face bloated with œdema, and purple from congestion and semi-asphyxia; tongue severely bitten, and bloody foam issuing from the mouth; abdomen enlarged to the size of a nearly full-time pregnancy. On vaginal examination, which the patient struggled against as though she felt the pain, the os was scarcely at all dilated, but the cervix was softened throughout. The child's head could be felt through the anterior vaginal wall. Her night-dress was wet with urine; skin hot and dry. Fœtal heart sounds heard midway between the umbilicus and the left superior iliac spine. I injected the third of a grain of pilocarpine, and placed her in hot blankets. She had a fit at 6 P.M., and another as they were bringing her up to Guy's in a cab, at 9.30 P.M. On arrival she was still unconscious, and the tongue was more swollen.

At 12.30 A.M., on Aug. 2nd, I saw her again, when vaginal examination was resisted more strongly. The os was dilated to the size of a florin. Temperature 100·2°; pulse 120. Fœtal heart heard again in the same place. One-third of a grain of pilocarpine was injected. This did not cause sweating, and so at 1.15 a fresh solution was obtained and one-third of a grain was again injected. This acted well, and in a few minutes she began to sweat and presently was bathed in perspiration.—2.50 A.M.: Can be roused. Does not resist vaginal examination so much. No repetition of fits. Uterus contracting frequently. Cries out sometimes that she has a pain in the back (uterine). Is very restless.—3.45 A.M.: Membranes ruptured spontaneously.—4.15 A.M.: Head nearly touching perineum. Patient speaks rationally, but her tongue is so swollen that it is difficult to make out what she says. Pulse quick.—4.30 A.M.: About four ounces of highly albuminous urine drawn off by catheter.—4.50 A.M.: Child suddenly and rapidly born; quite blue; no effort at respiration; no pulsation in cord; no cardiac beat to be detected. Efforts to induce respiration were of no avail. The child was a small one for full term.—4.55 A.M.: Patient asleep and snoring. 12 noon: Patient rational. She has not the faintest recollection of anything that has occurred since July 29th. Temperature 98·8°. Vaginal douche of carbolic lotion employed. Urine drawn off by catheter; two-thirds albumen; no casts; loaded with urates on cooling.

Aug. 3rd.—During the night she passed urine in bed. Temperature normal. No pain. Takes plenty of milk. Skin moist; tongue very sore; has headache.

4th.—Urine one-third albumen. Temperature 100·4°; headache.

From this time she rapidly got well, and in about ten days was up and about. She left the hospital on Aug. 16th with some albuminuria and headache. I have seen her several times since; the last time on Dec. 7th, when I examined the urine. It still contained a trace of albumen; no casts; sp. gr. 1015. She felt quite well and was again at her work.

In THE LANCET of June 13th, 1885, I published the notes of a case successfully treated by the subcutaneous injection of pilocarpine. The case I now publish is the only one I have had under my care since, and these two cases are the only ones I ever treated with pilocarpine at any time, and both have resulted very satisfactorily so far as the mother was concerned, but fatally to the child. Both these cases were very severe, as will be gathered from the clinical accounts. In both the cessation of the convulsions following the use of the pilocarpine was so quick and complete as to render it highly probable that the result was *propter* rather than merely *post*. An interesting point in the present case was the failure of the first solution used, owing to the fact that it had been made for some months. It not only failed to produce sweating, but the convulsions did not cease. After we had obtained a fresh solution and given an injection, the effect was quick, and there were no more convulsions. Obviously, therefore, in treating these cases by this method, a potent drug must be employed, and fortunately we are able to know whether it be potent or not by the presence or absence of profuse perspiration. If the patient does not begin to sweat within five minutes, the drug may be looked upon as useless, and a fresh solution obtained. Another point was the rapidity of the dilatation of the os, and the quick expulsion of the child after the administration of the pilocarpine. It would appear that pilocarpine must be looked upon as an ecbolic. The child was alive at 12 30, but when born, about four hours later, it was quite dead. Whether this was owing to the pilocarpine, or the convulsions, or the uterine contractions set up by the pilocarpine, or some other cause, must be left to future investigations.

St. Thomas's-street, S.E.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GUY'S HOSPITAL.

A CASE OF HYDROPHOBIA; DEATH; NECROPSY; REMARKS.

(Under the care of Dr. HALE WHITE.)

THE following case adds another to those in which chloral hydrate in large amount, administered by the rectum, has failed to do more than relieve symptoms. At one time it was hoped that it would prove a valuable remedy, but like other drugs, such as curare, cannabis indica, aconite, &c., it has not fulfilled the high expectations which were formed of it. Pilocarpine is still *sub judice*, and will doubtless undergo a more extended trial. At present the medical world is watching with some anxiety and every wish for success the inoculation of patients with attenuated virus as carried out by M. Pasteur, hoping that a means may be found of curing or preventing the disease.

We are indebted for the following notes to Mr. H. V. Rake.

G. W——, aged sixty-three, was admitted on Sept. 18th, 1885, at 12 noon, for inability to take nourishment, and spasms on attempting to take fluids. The family and previous history are both very good. Three months ago he was bitten on the ulnar side of his right wrist by a dog, a half breed between a spaniel and a collie. Caustic was applied immediately by a chemist, and the wound healed well in a fortnight. On the 17th, at about 11 A.M., he began to feel poorly, and went to a doctor, who gave him some medicine. On the 18th, at 1 P.M., he found, on attempting to take medicine, that the effort threw him into a violent spasm, but he could take bread sop. This difficulty in taking fluids increased, so in the morning the patient called in a doctor, who advised him to go to the hospital.

On admission he could not at first be persuadad to drink, but at last he swallowed some milk and brandy, which action sent him into general spasms. Temperature 101°; pulse 90; respiration 34. He seemed to have read a good deal about hydrophobia. He had a wild look about his face, and was nervous and irritable. He suffered from spasms and shivering fits, apart from any drinking; during

one of these seizures he huddled himself up and turned away from the light, all the while making a noise not unlike whining. He was especially nervous in speaking, and during the act there was a good deal of hesitation. He could be considerably calmed if one reasoned with him. He spat about a good deal. He was placed in a quiet and darkened room, in which a steam kettle was placed, and was ordered an enema containing brandy, beef-tea, milk, and five drachms of syrup of chloral every four hours; he was also ordered subcutaneous injection of kinate of quinine, and also subcutaneous injections of hydrochlorate of morphia. At 4 P.M. he was quieter, did not have such frequent spasms, and ate a little biscuit with much less trouble than on admission. At 10 P.M. he wandered a little. During the spasms the abdomen became as hard as a board. He was not at all thirsty, and begged not to have drink forced upon him. When Dr. Hale White went to see him the first thing the patient asked was if it was raining.

Sept. 19th.—Has not slept much. He does not notice that it is raining, but he will not allow a damp towel near his face. The nurse says that, excepting from 3 to 4.30 A.M., the spasms have not been either numerous or severe, and that the patient has taken a little rice pudding and custard. During the morning he was fairly quiet, and could be persuaded to take a little food.—2 P.M.: The spasms have not been so frequent as yesterday. He is very hopeful of getting better. When he is talking to anyone he suddenly changes the subject. He takes food with less hesitation; when he attempts to drink there does not seem to be any actual spasm of the glottis. The pupils are not completely contracted by morphia.

20th.—1.30 A.M.: Took almost a saucerful of custard in teaspoonfuls; the act of swallowing is prolonged, and is accompanied by jerky inspirations; he is quite rational, talks well, and is not disturbed by the sound of water from a tap. He said he should like some tea, but the attempt to drink it produced some jerky inspirations, but ultimately he took a little with a spoon. He is very particular that anyone should wait till he is ready, when he will say, "Now we are right." A laryngoscopic examination showed the vocal cords were closed during inspiration.—5 A.M.: Has been sick several times, and has been very restless and talking actively. He thought he should like some tea, but he would not let the cup touch his lips. He tried to take a little in a spoon, but this brought on a violent spasm.—6 A.M.: Has vomited a good deal; his breathing is in short spasmodic gasps; skin covered with a cold sweat; is very restless, frequently moving the whole body.—7.50 A.M.: The patient quietly ceased breathing at this time. There was no special spasm or struggle before death. Has been unconscious for the last hour and a half.

The temperature during the whole of the illness showed a very decided tendency to rise. It was 101·4° on admission; shortly before death it was 101·4°; an hour afterwards, 102·2°; three hours afterwards, 98·2° in the rectum. Only three times was it normal, although it was taken hourly. It averaged about 100°. The pulse at first averaged about 100; for the last twelve hours of his illness it ranged from 108 to 124. The respiration averaged about 32, the highest being 38 and the lowest 26.

Treatment.—The patient had eleven fifty-grain doses of chloral per rectum, or 550 grains in all; twenty-five grains of kinate of quinine subcutaneously; and five grains of morphia. All this was administered during the forty-four hours he was in the hospital.

Necropsy.—The scar of the bite was examined carefully, but did not show anything abnormal. The median nerve was not implicated in it, nor was the ulnar. All the viscera were absolutely normal to the naked eye, except for some old pleural adhesions and some congestion and roughness on the inner surface of the trachea. Microscopically, the changes that have several times been described in the medulla were found here in that situation, and all in the upper part of the cord and in the pons.

Remarks by Dr. HALE WHITE.—The points of especial interest about the case are:—Firstly, the great difficulty of affecting the patient by even powerful drugs. It will be seen that he had enormous doses, but they were quite ineffectual. There was no sign of chloral poisoning from the 550 grains of that drug, nor were the pupils contracted by the five grains of morphia given subcutaneously, nor could the temperature be kept normal with twenty-five grains of kinate of quinine administered subcutaneously. Secondly there is the important laryngeal observation, which shows that Dr. Pitt's views, as expressed in a recent number of the Guy's Hospital Reports, are correct. (For this observation I am indebted to Mr. Phillips, who, seizing a favourable opportunity, examined the patient.) Thirdly, there is the important corroboration of the corrections of the recent observations on hæmorrhage in the medulla. Fourthly, there is the redness and injection of the trachea, a feature so frequently seen in dogs that have died from hydrophobia.

NOTTINGHAM GENERAL HOSPITAL.

EXTRA-UTERINE FŒTATION; OPERATION; RECOVERY; REMARKS.

(Under the care of Mr. JOSEPH LITTLEWOOD.)

E. B——, aged thirty-seven, was admitted on May 16th, 1885, complaining of "enlargement of her bowels and flooding." She had been confined three times, and considered that she was nine months pregnant with her fourth child. She had felt fœtal movements up to the eighth month, when she had a severe fall, and since then had felt nothing. She had metrorrhagia of a week or ten days' duration at the end of the second month of gestation (Dr. Mutch states that she had an attack of peritonitis at or about that time), again at the end of the sixth month, and finally during the ninth month. On account of these attacks she consulted Dr. Mutch, and after the last attack was advised to go into the hospital. With the exception of these three attacks she has had no hæmorrhage during the last nine months.

On admission, the distension of the abdomen corresponded in size with an eight months' pregnancy, but was asymmetrical, bulging much more on the right side. In the left iliac region a second much smaller projection was noticed, which was afterwards proved to be the enlarged uterus. The larger swelling occupying the right side and middle of the abdomen, was fluctuating, and contained a solid mass floating in it. No fœtal heart or placental bruit could be heard, the fœtus having apparently died as a result of the fall at the end of the eighth month. On vaginal examination, the cervix uteri was found to be much displaced upwards and to the left; it was patent and admitted the finger as far as the internal os, which was closed, but not tightly. The sound passed without difficulty upwards and to the left a distance of four inches and a half. On bimanual examination, the cervix could be felt to be continuous with the mass in the left iliac region, which was therefore the fundus uteri. The uterus could be freely moved quite independently of the large cyst on the right side. She had not suffered any pain for the last nine months and experienced no inconvenience from the passage of the sound.

The following points were in favour of extra-uterine fœtation:—1. The fact that the woman, who had had several children before, was quite satisfied that she was pregnant, and that she had felt the fœtal movements up to the time of the fall at the end of the eighth month; and though she had been regular up to nine months ago, she had had amenorrhœa since, with the exception of three attacks of metrorrhagia. 2. That the swelling was fluctuating and contained a solid mass floating in it; the fœtal limbs could not, however, be felt through the abdominal wall. 3. The occurrence of uterine hæmorrhage, especially that at the ninth month, and the enlargement of the uterus.

For family reasons the patient left the hospital for two or three weeks and attended as an out-patient, when she was seen in the out-patient room and persuaded to return, and on the afternoon of July 13th the following operation was performed. The patient was put under the influence of bichloride of methylene and an abdominal section was commenced. The incision was made in the middle line and was about five inches long. There was no fluid in the peritoneal cavity, and the outside of the cyst, which was readily reached, was smooth, shining, and free from adhesions in front and at the side, and could not by its appearance be distinguished from an ovarian cystic tumour. It had several large vessels running on its surface. Spencer Wells's ovarian trocar was plunged into it, and a small quantity of coffee-coloured fluid escaped by the side of, but not through, the cannula; this was due to the smallness of the quantity, and possibly also to pushing the end of the cannula against the solid contents of the sac. On incising the walls of the cyst and introducing the hand, the limbs of a fœtus could be felt. It was removed without difficulty; it had evidently

been dead some weeks, and appeared to have been of about eight months' gestation. The umbilical cord was of a light-brown colour, and did not bleed on section, the circulation through it having evidently ceased for some time. It was not ascertained to what viscera the posterior wall of the cyst was adherent. The placenta was seen attached to the upper and back part of the sac, and was fixed. Slight traction was made on the placenta, but as this was quite fixed it was left *in situ*. The cyst wall, which was rather more than one-sixteenth of an inch thick, was stitched to the margins of the abdominal incision by a dozen or fourteen silk sutures. The cord was cut short and fixed at the lower part of the wound, which was closed up except at the lower part, where an indiarubber drainage-tube was inserted, the thickness of the ring finger. After the injection of one-sixth of a grain of morphia subcutaneously, the patient slept fairly well on the night of the operation, though there was a good deal of vomiting during that night and the succeeding day. No food was given for twenty-four hours following the operation, with the exception of a little ice. Temperature 99°; pulse 96; respiration 28.

July 15th.—Vomiting ceased; no pain; ordered veal broth and milk. Wound dressed; much thick dark-coloured discharge, some of which was got away by suction through the indiarubber drainage-tube.

16th.—Wound dressed again, and cavity syringed out with carbolic lotion (1 in 40).

During the next day or two, as there was carboluria, the lotion was changed from carbolic to Condy; the discharge was sometimes very offensive, and the wound was consequently dressed and the cavity syringed out several times a day. A week after the operation some shreds of what appeared to be the placenta began to come away, and on the seventeenth day from the operation a fairly large sloughing irregular mass was removed. The bowels were first moved by enema eight days after the operation, and continued to be moved in the same way afterwards, though there was some little trouble from old-standing piles. The wound has continued to discharge freely, and became free from fetor after the cord and remains of the placenta had sloughed away. She has had occasional rises of temperature, which have generally been followed by increased discharge for a day or two. She has passed from thirty to forty ounces of urine each day, and after the first week has not needed the catheter. She got up for the first time on August 4th, and, with the exception of a few days when she was not very well, has got up every day since. She now eats well and sleeps well, goes down into the garden every day, and is quite strong. There is still a sinus with a tube in it about two inches long, but the discharge is very scanty and quite sweet. She was kept in hospital for some time longer on account of the sinus which existed in the lower part of the wound, which, from its irregular contraction, kept back the discharge from the interior of the cyst and prevented rapid healing.

Remarks by Mr. LITTLEWOOD.—It will possibly be a matter of interest and speculation, but not of certainty, as to the form of gestation in this case. Tubal gestations generally burst before the third month, and a woman's only chance of recovery in such cases short of an operation, and that very quickly, is that the contents of the sac shall escape between the two layers of the broad ligament by rupture of the Fallopian tube at its lower margin, and little hæmorrhage take place; but these cases are, I believe, rare—i.e., where gestation goes longer than three months. Now, this cannot be said of the tubo-ovarian form; in this, arrest and development of the ovum may take place in the fimbriæ, the sac being formed partly out of the dilated mouth of the tube, and partly by attachments to the ovary and other structures near; in these cases gestation may go on until the full time or thereabouts; the fœtus may then die, and if the sac is a tough one the woman may carry the remains for years without any harm befalling her. Ovarian gestation has been doubted by many authorities, and the same may be said about abdominal gestation, except when it is secondary to tubal or tubo-ovarian, in which case the ovum after rupture of the sac preserves its vitality by retaining part of its original attachments. I am myself inclined to think that the balance of probabilities is in favour of the tubo-ovarian forms. I have reported this case (for the notes of which I am considerably indebted to my colleague, Dr. Handford, and the resident officers, Mr. Anderton and Mr. Ashwell) on account of the prolonged period of gestation, no similar case having occurred in my experience, the nearest approach to such being a case which, I have no doubt, will be remembered by some as occurring in the practice of Mr. Ellam and the late Mr. Thompson. A woman was supposed to be about six months pregnant, when her abdomen got gradually smaller, and she came to the conclusion that she had been mistaken. About eighteen months afterwards she had a good deal of irritability about the bladder. She passed urine frequently, which was found to contain much pus. She passed one day what seemed like a bit of bone, which led her to have her bladder examined, when there existed no doubt as to the cause of her trouble. I gave her chloroform. The urethra was slit up, and the bones of a fœtus, probably of six months' gestation, were removed from the bladder. I saw her a year or two afterwards, when she was in good health, but had difficulty in holding more than a small quantity of urine.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Supra-pubic Lithotomy.

AN additional meeting of this Society was held on Tuesday last, Mr. G. D. Pollock, F.R.C.S., President, in the chair. The whole evening was devoted to the consideration of the subject of Supra-pubic Lithotomy.

Mr. RICHARD BARWELL read a paper on Supra-pubic Lithotomy. A not infrequent sequela of urethro- or vesico-vaginal lithotomy is an intractable form of vesico-vaginal fistula, of which several instances have been under the author's care; hence he rejected those methods in the following two cases:—Case 1: A girl aged nine, admitted into Charing-cross Hospital on Feb. 6th, 1885. She was greatly emaciated, and suffering from dribbling of urine and frequent micturition. A large vesical calculus was detected. On Feb. 12th, 3½oz. of boro-glyceride solution, all that the bladder would hold, were injected, and Mr. Morgan passed a finger per vaginam to steady the stone and to prevent escape of fluid from the bladder by compressing the urethra against the pubes. The skin and linea alba, and then the thin fascia transversalis, were incised. An exceedingly soft layer of fat separated the bladder from the abdominal wall; this was cautiously divided, the bladder opened, and the stone extracted. The peritoneum did not come into view until the escaped fluid allowed the bladder to contract; the wall of that viscus, as also the abdominal wall, was sewn, a drainage-tube being placed between the two. The child suffered nothing after the operation, and by Feb. 26th the wound had closed. The stone measured 2¼ in., 1½ in., and 1¼ in. in its several dimensions, and weighed 2½ oz. Case 2: A man aged sixty, but feeble and looking old, had frequent and copious hæmaturia, which was increased by the most delicate sounding; the prostate was enlarged. On sounding, a stone was found. Measurement in three directions gave 1½ in., ⅞ in., and ⅞ in.; but the condition of parts, and the possibility that a papilloma might also be in the bladder, induced Mr. Barwell to prefer supra-pubic lithotomy to either the perineal operation or lithotrity. On April 30th 16 oz. of boro-glyceride solution were injected and retained by tying a tape round the penis. The skin, linea alba, and transversalis fascia being incised, the lower fold of the peritoneum was found to lie about three quarters of an inch above the margin of the pubes. The membrane was pushed without the slightest resistance from the front of the bladder. The man suffered no pain after the operation; the wound healed quickly, save a sinus just above the pubes, from which urine oozed in small quantity, and which did not thoroughly heal till July, the man remaining well in health. The author pointed out that the high operation for stone had been too much neglected, and may well be used in cases other than those of exceptionally large stones. For children it is particularly well adapted, and he contended that for female children no other lithotomy should be practised. There was no danger of a permanent fistula, the case (No. 2) being, he believes, the longest persistence on record. The danger of urinary infiltration may be avoided with practical certainty by proper after-treatment. In a properly conducted operation the peritoneum is safe—injection of the bladder will always raise it

high enough; and as it is barely attached to that viscus it yields upward to the slightest touch of the finger. The author showed that distension of the rectum had a very small effect on the anterior peritoneal fold. He also pointed out that Petersen's experiments gave unreliable results, and that Garson's table in reality supported his (Mr. Barwell's) views, and he detailed (in an appendix) fourteen experiments of his own in proof of this contention.

Mr. WALTER RIVINGTON read notes of a case of Vesical Calculus of unusually large size removed by Supra-pubic Cystotomy. Thomas K——, aged sixty-one, entered the London Hospital on January 13th, 1885. For sixteen years he had been troubled with symptoms of calculus. On examination per rectum, a large, round, smooth swelling was detected in the situation of the prostate gland. No stone could be detected with a sound. On February 24th median urethrotomy for the purpose of exploration was performed, and it was ascertained that the hard mass was not connected with the prostate, and that the bladder wall was pressed over by it to the right side. A sound pushed far back into the bladder at length struck a stone, which proved almost immovable when grasped by forceps. Under these circumstances it was decided to open the bladder above the pubes. A staff was introduced into the bladder and the usual incision made above the pubes. The end of a stone was now detected projecting into the bladder through an opening posteriorly. It was grasped with forceps, but could not be moved. Lithotrites were useless. The stone was therefore broken up with a chisel and mallet and extracted piecemeal. After the extraction, the wound in the bladder and that in the soft parts were separately sutured, with insertion of a drainage-tube, and a silver tube was inserted into the perineal wound. The patient rallied well from the operation. The supra-pubic incision was reopened on the 28th, as there was evidence of the escape of urine through the bladder wound. The surface of the wound was sloughy, but gradually cleaned and filled up with granulations. On March 21st the patient was allowed to be up for an hour in a wheeled chair. On April 17th the opening into the bladder had closed by granulation, and, with the exception of a fistula in the perineum, the patient had now recovered from the operation, and was up daily. At the end of May, three months after the operation, he had a renewed attack of cystitis. His urine became ammoniacal, diarrhœa ensued, and he died on June 4th. Permission was only obtained to inspect the abdomen. Suppurative nephritis of the left kidney was found, with inflammation of the bladder and of the large pouch in which the stone had been lodged. After the operation the collected pieces of the calculus weighed 23 oz. avoirdupois. In its restored form it measures in circumference 13 in. by 10 in., in length 4⅜ in., in width 3¼ in., and 3 in. in thickness, and weighs 22¼ oz. It is mainly composed of lithic acid and lithates. Although not absolutely the largest calculus ever removed from the human bladder during life, it appears to be the largest removed during life with recovery of the patient from the immediate effects of the operation. The case stands alone as regards the inclusion of the calculus in a pouch, the difficulty of the operation, and the breaking up of the calculus before extraction.

Mr. JACONSON contributed a case of Supra-pubic Lithotomy. A labourer, aged nineteen, was admitted into Guy's Hospital on Jan. 21st, 1886. He had suffered from constant irritability of the bladder all his life, with marked symptoms of stone for five years, and with cystitis for a year. The lithotrite and sound gave evidence of more than one stone. For this reason chiefly lithotomy was preferred to lithotrity. Hypogastric lithotomy was made use of on account of the age of the patient, the long duration of the symptoms, and the great probability that the kidneys were impaired. On Jan. 30th hypogastric lithotomy was performed, the bladder having been injected with 10 oz. of water and the rectal bag introduced. The peritoneum was not seen. One stone was readily found on incising the bladder, but prolonged search failed to find others. This was probably due to the mistake of keeping the bladder distended with fluid during the search, owing to which two other stones, small and light, escaped detection. Neither sutures in the bladder, nor drainage-tube in the wound, nor catheter in the urethra were made use of. The patient's recovery was somewhat retarded by an attack of pneumonia setting in the day after the operation. There was never any sign of extravasation or cellulitis. On the fourth and fifth days the wound and urine were distinctly ammoniacal, but this condition yielded to treatment. Two weeks after the operation a large venous hæmorrhage took place, and a few hours after a small calculus was removed from the wound; a few days later another and smaller calculus escaped. On the twenty-third day urine was first passed naturally; by the fifth week micturition was normal. It is evident now that, owing to the small size of the largest calculus (only 300 grains), all might have been dealt with by lithotrity. The author, however, still ventured to bring the case forward, and concluded with the following propositions: 1. That this operation has a future of revived usefulness before it; and that it will be found of great value by those who only have to deal with stone occasionally, and who find themselves face to face with stones of good size in adults. 2. That while as an operation it can never contrast with the rapid brilliancy of a lateral lithotomy, it will, in its improved form, give better results in adults with stones not suited to lithotrity. 3. That at present, till a larger number of cases of the improved operations have been collected, it will be wise not to attempt to close the bladder with stitches. 4. That in reviewing an abandoned operation the following questions call for an answer: Do we stand in a better position towards the operation than our predecessors did? This question can only be answered in the affirmative after the work done by Dr. Garson, Professor Petersen of Kiel, and Sir Henry Thompson. On what grounds was the operation abandoned? The grounds on which this operation was abandoned were enumerated.

Sir HENRY THOMPSON opened the discussion by remarking that the alteration in lithotrity, resulting from Bigelow's treatment, had changed the conditions under which lithotrity was now performed, and left a different category for those cases that required cutting. There could be no question that stones weighing 1½ oz. to 2 oz. could be removed safely by lithotrity. He thoroughly agreed with the expression of opinion that it was safer to adopt the supra-pubic operation, provided the modern improvements that belong to it were adopted. The operation could be performed in a more safe and easy manner than was formerly possible. The distension of the rectum was valuable, not only from the fact that, as Bouley strongly contended, the supra-pubic interval was increased, but from the circumstance that it places the bladder immobile under the surgeon's hand in the abdomen, and out of the pelvis. Hildamus, in the 17th century, had shown how it was possible to push up the stone above the margin of the pubes in children by pressure inside the rectum. The distension of the rectum was most valuable in the removal of large tumours of the bladder by the supra-pubic method; Sir Henry had operated upon two such tumours by this method. In nine cases in which he had performed the supra-pubic operation he had used but one ligature, the liability to hæmorrhage being very slight. But one case of the nine had died from advanced renal disease, a few days after the operation — an unavoidable complication. In the case of a tumour in a lady who was very anæmic, he also preferred the supra-pubic operation, as likely to be attended with the least hæmorrhage. He showed a simple flexible tube that he employed to allow the urine to flow off. The wound ought not to be closed for some days.—Mr. POLLOCK said he would like to ask the Fellows how far they would justify the supra-pubic operation. He related a case in which the two extremities of a hairpin had penetrated the posterior wall of the bladder, and a calculus of large size had formed round this foreign body. Here he made an incision into the posterior wall and removed the calculus and hairpin. After the cystitis subsided an ordinary vagino-vesical fistula remained, and was treated successfully after the ordinary fashion.—Dr. HEYWOOD SMITH related a somewhat similar case, in which, however, the incision healed by the first intention by sewing the edges of the fresh wound together after the primary operation was finished.—Mr. CADGE recommended caution in deducing general conclusions on insufficient facts. In the last century the operation had fallen into undeserved obloquy, but he was not sure that we ought yet to conclude that lateral operation might be abolished in favour of the new supra-pubic method. Many of the already reported cases might have been dealt with by the lateral operation, and Mr. Crichton of Dundee had shown that stones weighing from 4 oz. to 8 oz. might be successfully dealt with by the old operation. He thought it was not yet proved that the supra-pubic operation would interfere largely with the lateral method. He agreed with Mr. Barwell that distension of the rectum was not of much value in raising the prævesical fold of peritoneum, but that it was

mainly useful in raising the fundus of the bladder, which it could do even as much as 2 in. With the supra-pubic operation no stone should be left behind, a condition which was possible in the lateral method. The absence of hæmorrhage was another quoted advantage of the high operation, but in the dozen or so cases yet reported there had been three of decided hæmorrhage. Infiltration of urine, moreover, was not a common event in the lateral operation. In one case 18 oz. of fluid were injected into the rectal bag, on the removal of which a drachm of blood followed; in a day or so suppression of urine set in, and the patient died, advanced disease of the kidneys being found. At the necropsy a wound of the rectum between it and the bladder, going through the circular fibres of the muscular coat, was detected. It had done no great harm, but still the peril should be borne in mind.—Mr. R. W. PARKER had performed the supra-pubic operation once, and found it easy of performance. He had had twenty-two cases of stone, with the large proportion of eight females. In all these latter cases he rapidly dilated the urethra, and then removed the stone. He had had no death and no incontinence of urine following this procedure. His largest stone was rather smaller than that of the second of Mr. Barwell's cases. He exhibited the stones he had removed to show what could be done by the simple method.—Dr. GARSON said that Mr. Barwell's experiments had been made with the abdomen opened for four inches. His own were made with the abdomen unopened as well. The prævesical fold of peritoneum he found to be raised from 40 to 50 mm. After distending the bladder and the rectum, it was ascertained that for 5 centim. the bladder extended above the upper edge of the symphysis pubis. As the water was let out of the rectum the distance was reduced to 2½ centim. If the abdomen were opened first, but little, if any, raising of the peritoneal fold took place. Distension of the rectum first raises the bladder upwards and then forwards. In emptying the distended rectum the bladder describes a downward and backward course in a sort of curved line, so that what was uppermost became posterior.—Mr. T. BRYANT had repeated Dr. Garson's experiments and corroborated them in every way. The rectum was distended with 14 oz. first, and then the bladder with from 16 oz. to 20 oz., and in every instance he found that from 2 in. to 3 in. of the anterior wall of the bladder was exposed in the hypogastrium after making the usual incisions. He also added, with Mr. Cadge, a caution in thinking that evidence yet before the profession was not enough to justify any general conclusion on the utility and scope of the operation. Probably, however, in dealing with all large stones the supra-pubic operation was preferable to the lateral, especially if there be disease of the kidneys, though this complication would render any operation more perilous. He concurred with Mr. Parker in the opinion that in females rapid dilatation and lithotrity would prove sufficient for a large majority of stones.—Mr. LUND urged that in the lateral operation the danger arising from bruising of tissues made them unfavourable for healing; this was one difficulty that might be entirely disposed of by the supra-pubic method. The use of anæsthetics, he believed, was one reason why the operation might now be regarded with more favour than it was in the last century. In a case of piles for which the cautery had been used, the rectum became loaded with five days' accumulation; an enema was administered, and caused severe pain at the end of the penis; this, he thought, was explained by the distension exercising pressure on the sensitive neck of the bladder.—Mr. BARWELL said that his paper had been written before Sir Henry Thompson's lecture had appeared in THE LANCET, and before the *brochure* on the subject had appeared. He had performed experiments on the distension of the rectum so as to ascertain the exact position of the anterior fold of peritoneum as it would be in the surgical operation. He was surprised to find how little a safe degree of rectal distension raised the peritoneal fold. He did not think that in lithotomy there was any considerable use in having the base of the bladder brought nearer to the abdominal wound in the supra-pubic operation. No doubt there was a certain degree of danger in distending the rectum, especially in old people.—Mr. RIVINGTON said that he had removed a calculus measuring 6 in. by 5 in., and weighing 3 oz. by vaginal lithotomy, the wound healing almost completely by first intention. In another case, as in the President's, a hairpin had stuck in the anterior wall of the vagina and a calculus formed around it; here, also, he performed a similar operation. He should prefer vaginal lithotomy for most cases of the kind, unless the stone were of the very large kind.—Mr. JACOBSON considered that there would be no difficulty in detecting stones in future whilst exploring the bladder in the supra-pubic method. That he did not find all the stones in his case was not due to recesses formed on either side of the bladder in the rectum. It was dangerous to distend the rectum by anything more than 12 oz. or 14 oz. of fluid. In his own case some bloody mucus was passed for a day or two, but the distension had not been excessive. He concluded by expressing the opinion in the form of questions that the supra-pubic operation was preferable to the lateral.

CLINICAL SOCIETY OF LONDON.

Tubercular Ulceration of Palate.—Popliteal Aneurysm in Locomotor Ataxy cured by Pressure.—Acute Intestinal Obstruction after Ovariotomy.

AN ordinary meeting of this Society was held on the 26th ult., Mr. Thomas Bryant, F.R.C.S., President, in the chair.

Mr. CLUTTON read the notes of a case of Tubercular Ulceration of Palate, which was illustrated by drawings. The patient was a girl aged fifteen, who had been under his care about nine months. Her family history gave no evidence of a phthisical tendency. In her previous history it appeared that she had been in the Evelina Hospital for six months under Dr. Goodhart, who had described her condition in his book on Diseases of Children as a typical case of scrofula. In July, 1885, a year after leaving the Evelina Hospital, she was sent to Mr. Clutton at St. Thomas's Hospital by Dr. Rugg. The soft palate was then found to be divided by a median cleft, and the whole of the surrounding tissues swollen and superficially ulcerated. The surface was finely granular, and numerous small pit-like ulcers were distributed over the hard palate at a distance from the median fissure. The glands beneath the jaw were large and hard, as also were those in the left groin. The lungs, examined by Dr. Acland, were reported to be fairly healthy. During September the surface of the palate, previously ulcerated, almost entirely healed, but one auditory canal and the interior of the nose were found to be affected with a similar condition. In October the larynx was examined by Dr. Semon, when the epiglottis and arytenoid cartilages were seen to be ulcerated in the same manner. In November the lungs were found by Dr. Acland to have undergone a marked change, the right apex showing signs of active disease. The temperature, taken regularly about this time, recorded only a slight rise of the thermometer at night. In February of this year the palate had again broken down, and was occupied by three deeply cut ulcers. The right cheek also was now covered with scattered scaly papules, like the early stage of lupus. In March the lungs were found again to have improved, showing no distinct physical signs of disease. The palate also had again begun to heal. The secretions and small portions of the diseased surface were frequently examined by Dr. Acland and Mr. Ballance, but no bacilli were at any time found.—Mr. T. BRYANT had only seen two cases of lupus of the palate spreading to the larynx: one occurred in a well-to-do lady, in whom there was lupus on the nose and cheek; there were recurrences at long intervals, the tongue and epiglottis being involved after the palate; death took place from acute phthisis.—Dr. FELIX SEMON had seen Mr. Clutton's case. Was it lupus or tuberculosis? He approached the question from a clinical point of view. In September, 1885, there was no affection of the skin or lungs. Isambert of Paris had recorded the first case of faucial tuberculosis, and B. Fraenkel of Berlin followed him. In these cases of pharyngeal tuberculosis, tubercular affections of the lungs were sometimes present; in others totally absent. There was no reason why tubercle should not appear primarily in the mucous membrane. So far as he knew, however, there had been not a single satisfactory case recorded in which the larynx was primarily affected. He could not say from the clinical appearances whether a laryngeal disease were tubercular or lupoid, and the opinion of Schrötter and Stoerk confirmed him in this. But the temporary improvement of Mr. Clutton's case was in favour of the lupoid nature of the disease, and conflicted with the tubercular view taken by him (Dr. Semon) at first; then, after the skin had become affected the diagnosis seemed still more conclusive, and was made still more so by the spread into the nose and

œsophagus. He referred to the case of the lady shown that evening. From drawings of the early stage of the disease it appeared that there was a very close resemblance between that case and Mr. Clutton's. With regard to lupus of the larynx, Chiari and Riehl had collected in 1882 all the cases on record, and there were not more than thirty cases. But he questioned whether it was so excessively rare, and believed that if every case of lupus were carefully examined laryngoscopically lupus of the epiglottis might be found more commonly. As to the treatment of lupus of the larynx, there was only one case that had been cured, and that was Chiari's. The best result in all other cases has been a temporary improvement. In the case of the lady above mentioned aphonia had lasted a year, and there were very large mamillated excrescences; the case seemed most unfavourable, but the patient urged perseverance and now was almost cured; there had been no recurrence for five months.—Mr. DAVIES-COLLEY asked whether all the brothers and sisters had been examined with a view to exclude syphilis as far as possible. The girl had an affection of the eyes, some lumps on the forehead and back of the head, and an ulcer above the internal malleolus of one leg. He admitted that no great improvement of the condition of the soft palate took place under the use of perchloride of mercury, though the leg had improved. He had not seen another case in the active stage, but had seen three or four cases in which a cicatricial contraction of the pharynx had occurred, probably as the result of a similar process.—Mr. MALCOLM MORRIS related the case of the lady aged thirty-five shown that evening. Her disease began in 1867 with ulceration of the mucous membrane of one nostril. This did not advance much till 1876, when it spread outside and affected the upper gum and hard palate; treatment was begun in 1873 with various medicines—cod-liver-oil, iodide of potassium, and iodine. At the end of September, 1884, Mr. Morris first saw her, when there was very widespread disease. The importance of the diagnosis between lupus and tubercle was then discussed. A French observer had said that scraping or scarification of lupus was liable to be followed by tuberculosis of the lung, and argued that it was dangerous to touch lupus for this reason. Lupus was capable of inoculation in animals, and the bacilli of the two diseases were identical. Professor Raudnitz of Prague had collected 209 cases of lupus, and in only two was there tuberculosis of the lung, whilst in twenty-one there was a family history of tubercle. Though there did not appear to be much pathological distinction between lupus and tubercle, yet Mr. Morris thought there was a decided clinical difference. He had surgically treated about forty cases, and had never yet seen any tuberculosis of the lung follow. The slowness of the growth, and the fact that drugs had some influence on tubercle and no effect on true lupus, were clinical differences. Altogether he considered that the identity of lupus and tubercle had by no means been proved.—Dr. GLOVER related the case of a man whose palate was covered with small superficial, round, painful ulcers. He was admitted into Middlesex Hospital under the care of Dr. Douglas Powell; numerous bacilli were found in scrapings from the diseased parts; acute phthisis rapidly developed, and he died in six or eight weeks. There was no history or other indication of syphilis.—Mr. CLUTTON, in reply, said he had not seen the whole of the family; but two others of the nine presented no trace of syphilis. The swellings on the body were observed by Dr. Goodhart, who did not consider them as syphilitic. Rest in bed often caused great improvement in ulcers of the leg. Mr. Davies-Colley said the child had rested in bed.

Dr. LONGHURST read a case of Popliteal Aneurysm cured by Pressure, occurring in a patient aged fifty-one, the subject of locomotor ataxy. He was a single man of temperate habits, who for many years was an active member of the Alpine Club. There was a family tendency to varicose veins and phlebitis, in which the patient participated. He had had syphilis in 1860, and was treated by mercury; no secondary symptoms appeared, and his health remained good till 1878, when symptoms of tabes dorsalis set in. A voyage to the Cape of Good Hope in 1883 effected no improvement. Early in April, 1885, the popliteal aneurysm made its appearance, and he was then seen by the author. He had been able to attend to his duties as a solicitor, and had hunted three times a week with the Brighton harriers, but there was no history of a distinct strain or injury. On examination there was a pulsating swelling, the size of a small walnut, in the left popliteal space, without bruit, and completely controlled by pressure on the femoral in Scarpa's triangle. There was evident pulsation in the anterior and posterior tibial arteries at the ankle; the superficial veins of the limb were varicose; the limb was well nourished. Pulsation in the right popliteal was forcible, and the calibre of the vessel full. Cases of popliteal aneurysm in the subjects of locomotor ataxy not being very common, there was some uncertainty as to the best course of treatment to be pursued. Dr. Longhurst considered that pressure would be the best method of treatment, and Professor Humphry concurred in this view. Accordingly on April 19th treatment by pressure was commenced under the direction of Mr. Thomas Smith. Esmarch's bandage was applied from the foot upwards over the knee and retained for an hour and a half. Then the screw tourniquet was applied to the femoral artery and continued all day, when it was removed, the pressure having been well borne. On the evening of the next day a shot bag weighing 11¼ lb. was suspended from a cross bar over the bed so as to compress the femoral artery in Scarpa's triangle; pulsation was completely controlled. An extra pound was added at the end of an hour, and the whole borne till 11 P.M., when it was taken off for the night. It was reapplied on the 21st, and, alternately with Esmarch's bandage, was continued till 11 P.M., when pressure was again removed for the night. On the next day the same treatment was pursued. At the end of the day there was no pulsation in the aneurysm. The weight was reapplied on the 23rd at 7.15 A.M., but had to be removed at 10.30, because the foot was numb and cold. It was, however, intermittently employed till 7 P.M., and finally disused. There was no pulsation in the aneurysm, but it existed in the small arteries around the knee, and only in the anterior tibial at the ankle. At 10.30 P.M. the limb was enveloped in a calico bandage, but as the pressure prevented sleep it was taken off at midnight. There was no return of pulsation on the 24th. The aneurysm was thus cured by pressure in five days, neither the varicose state of the veins nor the nervous disease having interfered with the treatment. The shrinking of the tumour took place gradually, and the collateral circulation became by degrees more fully established, so that, notwithstanding some lividity of the toe-nails and diminution in the temperature of the limb, the recovery was complete. The patient returned to his office a month from the commencement of treatment, and up to the present time the cure of the aneurysm had remained perfect. Unhappily, however, the nervous affection has steadily progressed, so that the sufferer is now unable to walk.—Dr. HADDEN referred to a case of locomotor ataxy associated with perforating ulcer for which amputation of the foot was performed, in which the hæmorrhage proved refractory. The nerves and vessels of the amputated limb showed marked changes.—Mr. THOMAS SMITH debated the question of treatment, and said that he had a predilection for hastening on the cure. It was interesting to observe that in Dr. Longhurst's case the pulse in the posterior tibial artery disappeared altogether one day and then returned the next. In cases of locomotor ataxy he should prefer to tie the artery on account of the general constitutional state; for in the patient under consideration the nervous troubles made rapid progress, which he could not but attribute to the taxation of his nervous forces resulting from the treatment by compression. In one case of perforating ulcer occurring in locomotor ataxy that had come under his notice, the patient died from hæmorrhage after amputation of the limb. He had operated on a case of locomotor ataxy for disease of the tongue: the wound healed very well and there was no trouble from hæmorrhage.—Mr. T. BRYANT considered that the treatment that was adopted was the most reasonable, but thought it should be given up if the capacity of the patient for endurance broke down. It was more likely to be successful than ligature, owing to the presence of arterial disease; in tabes dorsalis the blood was in much the same condition as in health. Doubtless, also, the rapid treatment was the best, and less likely to tax the patient's powers. Noting the fact that there was no murmur, it was probable that a large opening existed between the artery and the aneurysm; in such cases a complete cure required coagulation in the vessel as well as in the aneurysmal sac, and it was easy to understand how all the clot could get washed away.—Dr. CARRINGTON thought it should not go forth from this Society that there was any necessary connexion between arterial disease and locomotor ataxy without some kind of protest. So far as he knew cardiac or arterial changes were not of common occurrence

in tabes dorsalis.—Dr. HADDEN said that he thought the connexion was one that had received very general assent of late.—Dr. A. MONEY remarked that several papers had appeared in the *Lyon Médical* by M. Teissier and others pointing out the frequent association of cardiopathy and arterial disease with tabes dorsalis.—Dr. LONGHURST, in reply to Mr. Smith, said the patient had no morphia.

Mr. MEREDITH read notes of a successful case of Laparotomy for the relief of Acute Intestinal Obstruction following upon Ovariotomy. The patient, a feeble old woman, aged fifty-eight, was operated on at the Samaritan Free Hospital in April, 1885, for double ovarian cystoma, complicated by very extensive adhesions (parietal, pelvic, omental, and intestinal). The subsequent progress of the case was in all ways satisfactory during the first week, at the end of which time all sutures were removed after the bowels had acted, the abdominal incision being found well united, and the pulse being recorded as normal. On the evening of the same day the patient suddenly complained of nausea, and soon after vomited a quantity of dark-green fluid. On examination, the abdomen was found free from distension and universally resonant on percussion, excepting immediately over the region of the cæcum, where some dulness was detected. The condition was diagnosed as commencing intestinal obstruction, probably caused by an adhesion band. All nourishment by the mouth was at once stopped, and replaced by nutrient enemata of beef-tea, containing occasional doses of tincture of opium. By the following morning there had been no return of the sickness, but the patient looked worse, the abdomen was somewhat fuller, and the urine passed during the night was for the first time found laden with albumen. Immediate operation was decided upon as likely to afford the patient the only chance of recovery under the conditions believed to exist. On opening the abdomen the peritoneum was found intensely red and congested, evidently in an early stage of acute inflammation. Attention was attracted to a coil of greatly distended small intestine, which was badly kinked and obstructed in consequence of the traction exerted upon it by a portion of the ligated omentum which was closely adherent to its surface. This having been released with some difficulty, owing to the inflamed and softened state of the bowel, another distended coil similarly obstructed by a separate omental band was also set free. No further obstruction being discoverable, the abdomen was then closed. The acute symptoms were at once relieved by the operation, and the temperature fell to normal again on the third day, but convalescence was tedious. No evacuation of the bowels took place until the twenty-third day, when fæcal matter was for the first time detected in the rectum, and relief followed upon the use of an enema. Thenceforth the bowels acted daily, and the patient left the hospital on May 16th, exactly six weeks from the date of her first operation. When last heard of at the end of October, she stated that she had quite recovered her health and was about to resume domestic service. In commenting on the case, Mr. Meredith urged the advisability of early resort to operation under similar circumstances, quoting an instance in his own practice where the patient's life might readily have been saved by such means.—Mr. T. SMITH asked whether the albumen in the urine was associated with the employment of the carbolic spray.—Mr. MEREDITH replied in the negative.

The following living specimens were exhibited:—Dr. Radcliffe Crocker: Arsenical Pigmentation in a case of Chorea. Mr. Malcolm Morris and Dr. F. Semon: Lupus of Face and Larynx. Mr. Clutton: Tubercular Ulceration of Palate. Dr. S. Mackenzie for Dr. Handford (Nottingham): A case of Xeroderma (? Myxœdema).

MEDICAL SOCIETY OF LONDON.

Irritable Brain and Congestion of the Brain in Children.—Simple Pneumothorax, with rapid recovery.

AN ordinary meeting of this Society took place on Monday last, Mr. Brudenell Carter, F.R.C.S., President, in the chair.

Dr. DAY read a paper on Irritable Brain and Congestion of the Brain in Children. He considered that the essential proximate cause of cerebral irritability was anæmia. Many individuals about to suffer from nervous headaches experienced curious sensations of restlessness and depression, probably due to cerebral anæmia. The causes of cerebral irritation were very numerous; sometimes it followed accidents either to the head or some other part of the body; it supervened at other times on chronic illness or acute disease. It was as much a primary disease in some cases as irritability of the larynx or bladder. Sometimes the irritability led to congestion, and this to meningitis. Irritability was, again, a symptom of actual disease of the meninges or brain. Many cases were read illustrating Dr. Day's remarks. He believed that in many cases cold sponging was the best method of reducing the febrile temperature. Cerebral irritation is frequently accompanied by fever and often followed by frontal headache. Excessive heat or profound cold may set up congestion of the brain. Delay in the treatment of such cases may allow of the development of coma, which leads to death. The distribution of the blood may be unequal in different parts of the brain, some being congested, others anæmic. Congestion of the brain very early succeeds irritation; if, indeed, it do not sometimes accompany irritation. A want of balance in the venous and arterial circulation of the brain may disturb its functions. In some cases there are negative symptoms—lassitude, change of manner, without fever, vomiting, or constipation. After lasting for some time, this stage may be succeeded by one in which positive signs and fever develop. In diagnosis the temperature is of but little value unless taken in connexion with other signs. The temperature of the body is very mobile in some nervous children. It is difficult, if not impossible, to draw the line between active congestion and inflammation.—Mr. R. B. CARTER considered that hospitals for sick children afforded a fine field for ophthalmoscopic observation in cases of cerebral disease. He remembered that M. Bouchut had drawn a distinction between neuritis and perineuritis; for the optic nerve received its blood-supply from the anterior cerebral, whilst the coverings of the nerve were supplied from the pia mater. In a case of coma after convulsions he had noticed the same colour as the surrounding fundus in the optic disc. In an undoubted case of meningitis he had seen there was the perineuritis that M. Bouchut had described.—Dr. CHARLES WEST doubted whether the observations of Bouchut were of much scientific value. The ophthalmoscope might corroborate a diagnosis, but it seldom initiated one. Most of the cases that Dr. Day had brought forward were probably examples of congestion rather than mere irritability. Pure and simple meningitis in the child was of very rare occurrence. Tubercular deposits might give rise to various symptoms, and when inflammation supervened the clinical source suddenly altered its character, vomiting being a notable symptom.—Dr. SANSOM spoke chiefly of the peripheral causes of cerebral irritation. In his experience, hypermetropia, and myopia more rarely, were often a cause of cerebral symptoms, simulating irritation. In a case which was first looked on as dyspepsia Dr. Sansom discovered optic neuritis, and gave a grave prognosis. Vomiting supervened later on, and opisthotonos developed. A sarcoma of the cerebellum was discovered. Although neuritis existed, there was sometimes no defect of vision.

Dr. WHIPHAM read notes of a case of Sudden Pneumothorax. The patient was a man aged twenty-one, who caught a severe cold. He was admitted into hospital on Dec. 10th, 1885. The condition began on Dec. 4th with a violent pain at the lower part of the right side. There were amphoric sounds over the right side; the vocal fremitus was fairly distinct, although most of the other signs of pneumothorax were present. On Dec. 14th the patient was so well that he was put on ordinary diet. On Dec. 23rd the air had become so far absorbed that the liver was at its normal level. In the middle of January the man was discharged well. A few other cases had been recorded, altogether eight in number. Five occurred in individuals under the age of thirty-seven. Dr. Thorburn's and Dr. George Johnson's cases occurred in lungs in which there was no obvious previous disease, and it was suggested that adhesions of the pleura had undergone alterations allowing of rupture. In Dr. S. Mackenzie's patient, aged fifty-seven, there was emphysema. Vogel believed that latent tubercular cavities might be the cause of sudden pneumothorax. In cases of the kind under consideration absolute rest seemed to be all that was necessary for perfect recovery. Active interference would be but seldom necessary, only when dyspnœa or cardiac distress seemed to call for it.—Dr. S. WEST had recorded a somewhat similar case in the Clinical Transactions, and had collected twenty-four such cases. The comparative absence of symptoms in Dr. Whipham's case

was remarkable, for in healthy individuals the symptoms at the onset were very severe. Most of the patients were under the age of thirty. He thought it was very doubtful whether in the majority of cases there was not a gross lesion. In experimental pneumothorax of animals it was difficult to maintain the affection, as the air was rapidly absorbed.

HARVEIAN SOCIETY.

Compound Fracture of the Patella.—Sprained Joints.

A MEETING of this Society was held on Thursday, March 18th, J. Hughlings Jackson, M.D., F.R.S., President, in the chair.

Mr. G. R. TURNER read a paper on Compound Fracture of the Patella. The patient, a fireman, aged thirty-two, was admitted into the Seamen's Hospital on June 1st, 1885, with a compound transverse fracture of the patella. The cavity of the joint was open through a contused wound, two inches and a half in width, from which blood was exuding, the patellar fragments being separated by about half an inch to an inch. Thorough cleansing under antiseptic precautions, the limb being fixed on a straight posterior splint, with the wound left open, constituted the first treatment. A blood-clot subsequently was found to be projecting between the fragments, but it was not disturbed. At the end of the sixth week a small sequestrum came away from the lower fragment. The man made an excellent recovery, and was discharged in October with power to flex the knee nearly to a right angle, the fragments being then separated by about one inch and a quarter, and by three quarters of an inch when the limb was extended. In his comments upon the case, the author referred to the slight separation of the fragments in cases of compound fracture, possibly due to the escape of fluid from the joint; to the aseptic course of the case, notwithstanding partial necrosis; and to the question of treatment, in which he gave the preference to the expectant plan as opposed to wiring. The paper was concluded by a detailed summary of nineteen cases of this injury at present on record.—Dr. WALFORD described a case of compound fracture of the patella, in which, with partial antiseptic treatment, recovery had taken place in four months.—Mr. PICK commented on the influence of antiseptic treatment in lessening the gravity of the injury, and related the details of a remarkable case under his own care, ending in synostosis of the joint. He believed in very thorough cleansing of the wound, the edges being left open to admit of any putrescible matter being kept antiseptic. The separation of the fragments depended upon the amount of fluid effusion, but it was much more marked in cases where the capsule was torn.—Mr. GANT pointed out that in one case complete success had been obtained without antiseptics, although he had no doubt as to their value. He should never employ wiring in cases of simple fracture, the less severe treatment being quite as successful in its ultimate results, but he would use it in every case of compound fracture where the joint was once opened. Any great effusion, either of serum or blood, should be drawn off. In ordinary fractures he had used gutta-percha pads, drawn together by Malgaigne's hooks, with success. Where all the bones were injured by any form of destruction or partial anchylosis, he should prefer excision of the joint.—Mr. J. H. MORGAN referred to Mr. Pick's case, and observed that in the presence of much effusion union was assisted by the removal of the fluid. In such a case he should prefer to suture the fragments.—Mr. FITZROY BENHAM suggested that the limb should be kept flexed at an angle of 10°, believing that no action of the quadriceps extensor was liable to take place in that position.—Mr. TURNER, in reply, commented on the extreme rarity of compound fracture of the patella. He had found one case of suppuration in simple fracture.

Mr. EDMUND OWEN read a paper on Sprained Joints, in which he urged that a sprained joint should be dealt with on the same principles as those which guide the surgeon in his dealings with a fracture at or near the articulation. He advocated rest and compression for the joint, and maintained that if only the parts be at once enclosed within a plaster-of-Paris casing, with even compression, effusion will be prevented and pain allayed. He employed Croft's method of applying the gypsum splints, and urged its adoption in preference to lotions, ice-bags, simple bandaging, and strapping. He instanced various illustrative cases.—Mr. GANT would recognise two classes of sprains: those in which the tendons were affected, and those in which the ligaments only were injured. He related a case in which the extensor tendons had been torn by the foot being doubled under the leg. Passive movement should be employed early, even though pain was caused thereby.—Mr. KIALLMARK advocated the use of American plaster applied at once, instead of evaporating lotions. He would allow passive movement as soon as it was possible without causing pain.—Mr. PICK thought it difficult to decide when to begin passive motion, but he should generally begin early and persevere, using evaporating lotions at first. He referred to the use of very hot water in recent sprains on the stage.—Mr. VASEY mentioned the successful use of clay mould applied at once round a sprained joint.—Mr. OWEN, in reply, observed that he would be guided by the heat or coldness of the joint, and not by pain, in deciding when to commence passive motion.

EPIDEMIOLOGICAL SOCIETY.

Cholera in Fleets and Ships.

AT the meeting of this Society held on Wednesday, March 10th, Dr. Dickson, President, in the chair, a paper was read by Sir WILLIAM SMART on Cholera in Fleets and Ships. The author pointed out that one of the earliest English observers of cholera was Mr. Curtis, of H.M.S. *Seahorse*, and of the Naval Hospital at Madras, in 1782, who called the disease the "cramps," and the same name was used by Mr. Girdlestone, surgeon of the 101st Regiment, which regiment landed at Madras that year, and was at once attacked by cholera of the most intense type, the cramps being the most prominent symptom. At that time Dr. Paisley, the head of the E.I.C. Medical Staff at Madras, considered the disease to be the same as that which prevailed epidemically in London in 1669-70, which bore the name of "cholera morbus," applied to it by Dr. Sydenham at the time; of which, in contrasting it with ordinary summer cholera, he states: "It differs from that as far as the poles are asunder." To Dr. Paisley the application of the name to the Asiatic disease appears to have been due. After Curtis, who published in 1807, we have no naval authority on cholera, although it must have been seen by surgeons of ships in the East Indies. In 1833 it was among our ships at Lisbon, when the Spaniards denied its presence in Spain; it also was seen in the West Indies. In 1837, when epidemic at Malta, some ships were infected. In 1850 the squadron at Malta was severely attacked throughout the summer, and three times it appeared from infection received in the harbour, but from all the ships the disease disappeared when they were taken to sea. In 1854 it broke out in the fleets in the Black Sea and the Baltic. In the former the infection was brought from France, and it ravaged five ships, especially the *Britannia*, of which Sir William Smart gave the history in detail. He mentioned the length of exposure in some ships, twenty having cholera from the third to the seventeenth day after entering the infected port. The fleet went to sea, and in three of the line-of-battle ships there were violent outbursts at sea. That in the *Britannia* was the worst, and she returned to port on the fifth day, having lost 50 men in the first twenty-four hours of the outburst, and 93 out of 201 attacked in five days. She was cleared out and smoked, after which the disease ceased in her. Eighty-five men were transferred to the *Apollo*, of whom 26 died. The nurses sent with the sick were attacked, and some died, but the crew of the frigate were not at all infected by their visitors being eleven days on board. The Baltic fleet was infected with variola on leaving England, and that was followed by fever; but three months had elapsed when cholera appeared in the Gulf of Finland. With cholera on board, the combined fleet, English and French, went up the Gulf to Cronstadt, where the infection became worse; then it went to the mouth of the Gulf, and it had nearly disappeared when the French army arrived from Brest, bringing among the troops fresh infection to attack the sailors and marines who had landed to besiege Bomarsund, and thence took it to their ships. The French troops and ships suffered much more than the English. On Sept. 17th the French ships left for home, taking their troops, but the English did not leave the Baltic till Dec. 7th. In that fleet there were no severe outbreaks as in the Black Sea fleet, and the disease was more of the diarrhœal type. In the Black Sea there were 655 attacks of cholera

with 354 deaths, and in the Baltic there were 327 attacks with 124 deaths. The author went on to give facts and details of the severer visitations of cholera in ships on the East Indian stations at recent periods. In 1858, the year of the second China war and of the Indian Mutiny; and in 1862, when our forces were directed to repel the Taeping rebellion, the *Euryalus*, whose crew had had no leave since quitting England, arrived, and next day part of the crew formed a boat expedition up the river, of which the water was drunk by them, and on the fourth day they landed and scoured the country. That same night cholera broke out in the party, but on returning to their ships no ill effects resulted to those who had not gone on the expedition, and the whole epidemic of cholera became one of dysentery and remittent fever. Sir William Smart said he had no reason to believe that cholera could be communicated by close contact; but there must be an infectious "aura" from the sick or their excreta, where cholera is of an epidemic type, that reproduces the disease in others, of which there was to his mind proof in the secondary infection of the marines in H.M.S. *Queen* in 1850. He had witnessed nothing to give support to the doctrine of Pettinkofer, but believed in the necessity for keeping the decks as dry as possible whenever any kind of bowel disorder was epidemic in crowded vessels. Although admitting that the theory of Koch may explain some phenomena of epidemic cholera, yet he finds no support to that theory in the terrific and sudden outbursts he has had to speak of; but he feels that it is not inconsistent with what appears in those epidemics that grow up more slowly by isolated cases, that may or may not culminate in an outburst of the disease. It appears that in epidemics the ratio of diarrhœal attacks increases proportionately with that of cholera attacks and mortality, thus showing that the diarrhœa was a constituent of the epidemic. In the worst infected ships this was equally observed, also that the first victims to cholera in the outbursts were the men already under treatment for diarrhœa, which adds support to the idea that the great majority of diarrhœal cases occurring in cholera epidemics possess the potentiality of development into the rice-water collapse type of the same disease.—In the discussion which followed, the President, Dr. Lawson, and Dr. Pringle took part.

CAMBRIDGE MEDICAL SOCIETY.

AT the meeting on Friday, Feb. 5th, Mr. WHERRY related a case of Inflammation of Joints Following Injury to Spine, occurring in a labouring man, aged fifty-four, who was working on a stack in the dark of early morning of Dec. 24th, 1885, when he fell off, dropping about eight feet on to his left side. He walked home with pain and difficulty a distance of over a mile, laid in bed drowsy, without appetite, and only just able to slowly move his limbs. After a week in this condition he was carried into the hospital on Dec. 31st. On admission he was drowsy and stupid, and answered questions in a dull manner when roused. Skin sensation seemed perfect everywhere. The movements of the limbs were very slow, difficult, and painful; no rigors, no sweats, and no bladder symptoms; bowels confined. He had always had good health, and was working daily up to the date of the accident. On January 1st, 1886, there was some swelling of the left wrist, fingers, and both ankle-joints, with pain on movement and tenderness, relieved by an opiate. Heart-sounds normal; evening temperature 101·6°. Next day there was marked redness and swelling of the left wrist-joint with œdema, and of the joints of the first and second fingers; beads of sweat on the left forehead, and a few small herpetic vesicles along the course of the left supra-orbital nerve; tears and secretion excessive in conjunctival sacs of left eye; pulse 80; considerable œdema of both ankles; patient drowsy; no general sweating; urine acid. The bowels acted after calomel. Evening temperature 101·4°. On Jan. 3rd the redness and swelling in the left wrist continued, as well as in both ankles; drowsiness and stupor; muco-pus in conjunctival sacs of left eyelid, not in right. The knees were usually kept drawn up in the bed, and were put down with an effort. Morning temperature 100·2°; evening temperature 101·8°. By Dr. Latham's suggestion he was cupped at the root of the neck behind, in two places, and about two ounces of blood drawn. No relief that night. On the 5th there was less pain and tension in the joints. His manner was still stupid and dull. Morning temperature 99·2°. He was cupped again in four spots and four ounces of blood drawn, and five grains of calomel and a grain of opium were ordered.—Jan. 6th: Bowels had been moved three times. Better. Wrist and ankles less swollen. Morning temperature 100°; evening temperature 101°. Mixture of senna and opiate.—7th: Wrists and ankles better; complains of pain in right knee, with some tenderness, but there is no swelling. Blister in four spots along the spine. Opiates at night. Blisters open by savine ointment. Calomel and castor oil in the evening; evening temperature 100·8°.—9th: The right foot and ankle more painful and swollen; the other joints better. Morning temperature 101·2°. Ordered a blister over the lower dorsal vertebræ. Evening temperature 101·8°.—10th: Feels better, and has had a good night; has no longer the dull stupid manner; his mind is clear. Was ordered tincture of opium three times a day. The blister to be kept open with savine ointment. From this time continuous improvement took place. The evening and morning temperature fell daily until the 19th, when the evening temperature reached the normal point, and the blistered surface was allowed to heal. There was some œdema about the affected joints after the redness and pain had passed away, but this entirely disappeared by the 23rd. There was still at this date a little tenderness and thickening about the left wrist. The unilateral sweating of the face was noticed from time to time. On Feb. 2nd the patient was sitting up in bed much improved, and had lost all pain, except now and then in the left wrist. There was some thickening and stiffness about the joints which were affected, and his grip was still weak, though very much stronger than before. Was this a case of injury to the spinal nervous system? There is nothing against this view in the fact that the man walked so far to his home after the injury. It has been especially noted by Le Gros Clark that after severe spinal injuries there might be very little shock, differing in this respect so much from other visceral lesions, There was not any difference between the appearance of the joints and that which manifests itself in rheumatism or rheumatic gout. The small joints and wrists and ankles were most affected, and the left wrist acutely, but the flexion of the knees and hip-joints, which was specially noted, pointed to inflammation, the first sign of an inflammation in a large joint being the constant assumption of a flexed position. There was no history of former rheumatism. With regard to the sweat symptom which pointed to a vaso-motor disturbance or paresis, both general and local sweating have been noticed after nervous shock, as after railway collisions, and one leg has been observed to sweat and not the other. Page tells the story of an alarmed woman who thought her child was about to be knocked down at a railway station, and who was herself knocked down on the platform. Polyuria followed during some weeks, except for twenty-four hours, during which it was replaced by an enormous flow of milk from the breasts; the vaso-motor disturbance seemed to move from one part to another. This patient had a sweating of the left temple, but no general sweating, though the skin was fairly moist. This phenomenon was observed by Mr. Wherry on two occasions, and it was carefully confirmed by others, sources of error such as draughts of air being excluded by screens. Mr. Wherry had been careful to give his own observations as to the facts without hazarding any definite pathology. Dr. Latham, who treated the patient so successfully, had localised the lesion with precision in the medulla oblongata, and considered that the dominant vaso-motor centre therein was disturbed. In the last edition of Erichsen's Surgery, in the account of spinal concussion, the diagnosis from rheumatism is made clear by the statement that "in spinal concussion there is never any concomitant articular inflammation."

Dr. LATHAM showed Uric Acid Crystals which he had prepared by heating together glycosine and urea; a full account of the method was published in THE LANCET of Feb. 6th.

THE PARKES MUSEUM.—The committee of this institution have arranged a course of twelve lectures, commencing on the 3rd inst., for the special instruction of those desirous of obtaining knowledge of the duties of sanitary inspectors. The subjects treated will comprise ventilation, water-supply, drainage, disposal of refuse, food, infectious diseases, nuisances, &c., and the lectures are to be delivered by well-known authorities. The fee for the course is five shillings.

Reviews and Notices of Books.

Handbook of Diseases of the Nervous System. By JAMES ROSS, M.D. London: J. and A. Churchill. 1885.

DR. ROSS's treatise on Diseases of the Nervous System has achieved a high success, and we said of the second edition that it had no equal in the English language. The author therefore comes before the medical public in the capacity of a writer of a Handbook of Diseases of the Nervous System with the prestige that attends a former success in an arduous undertaking. After a careful perusal of the volume before us we have not the slightest hesitation in asserting that it is a very valuable work.

In producing a book of this kind the difficulty is to apportion its dimensions and to assign the amount of detail which shall be entered upon. Its contents should be something between those of a treatise and those which may be found in works on the subject of medicine. That has no doubt been Dr. Ross's aim. Naturally some difference of opinion may be entertained as to which side a handbook should lean, and we confess that we do not feel prepared to say whether more matter should not have been introduced into Dr. Ross's new book. The account of diseases of the nervous system in Dr. Roberts' and Dr. Bristowe's works is no doubt adequate for the general purposes of a physician. It seems reasonable, therefore, to compare those accounts with Dr. Ross's book in order to see in what respect the possessor of his manual would be better off than he who had but a general treatise on medicine to guide him. The number of illustrations in the handbook is unquestionably one advantage. Not that the illustrations possess much originality, for most of them have done duty in other works; but we have here brought together a very valuable series, which cannot fail to increase the reader's interest and elucidate the text. Additional advantages in the handbook are to be found in more accurate and detailed descriptions of the pathology and clinical symptoms of nervous disease, as well as fuller guidance in the methods of treatment. As to Dr. Ross's style, it is clear and terse; the matter has been well digested; the facts have been gathered from many sources, including the author's own experience; so that, all things considered, it is evident that we have before us a very valuable contribution to the knowledge of diseases of the nervous system. Dr. Ross's *forte* is his wide reading and powers of assimilation, combined with the necessary literary powers of expression in the conveyance of the information that he has to impart.

The mode of arrangement of the work is excellent. The first chapter is an "anatomical introduction," treating of the formation of nervous constituents, of nervous tissues, and of a nervous system on the lines of the theory of evolution. The physiological introduction corresponding to this is treated in the second chapter. Then naturally follows a chapter on General Morbid Anatomy and Physiology of the Nervous System, in which disease is regarded as a dissolution of the nervous system, using the term in the sense given it by Hughlings Jackson, as the process the very opposite of evolution. General Symptomatology is dealt with under the headings of æsthesio-neuroses, tropho-neuroses, and kinesio-neuroses—or disturbed sensory, nutritive, and motor functions. A chapter on General Treatment concludes the first part of the work on General Pathology. In this first part Dr. Ross displays the same kind of originality that is met with in his treatise—we refer to the adoption of the method implied in the principle of evolution as expounded by Hughlings Jackson. The Special Pathology treats of the various diseases in the following order: General diseases of the peripheral nerves, disorders of common sensation and of special sense, spasmodic disorders, atrophic paralyses, spasmodic paralyses, disorders of motor coördination, vascular diseases of the spinal cord, myelitis, spinal meningeal diseases, functional disorders, shock, concussion and allied conditions, vascular diseases of the brain, encephalitis, atrophy, hypertrophy and tumours of the brain, aphasia, diseases of cerebral membranes, paralysis agitans, multiple sclerosis, and chorea. The final chapter is one on General Diagnosis.

The reader will look in vain for heterodox or unauthorised statements; he will have to unlearn nothing. The printer's part of the work has been, on the whole, well done. Many typographical errors have been allowed to remain in the text, but most, though not all, of them have been corrected in a list of errata—the length of which is doubtless due to the work having been printed in America, the author possibly not having read the revised proof-sheets.

All But: a Chronicle of Laxenford Life. By PEN OLIVER. London: Kegan Paul, Trench, and Co.

UNDER the above title the author of "Charley Kingston's Aunt," &c., has again occupied his August and September vacation time in writing a pleasant romance depicting country life. It is now pretty generally known that it is Sir Henry Thompson who, under the *nom de plume* of Pen Oliver, has thus occupied his holiday in making a sketch after nature, which he has dedicated to one of his oldest friends, Dr. Russell Reynolds, first met among a crowd of freshmen at the gate of University College. It is pleasant to find two men, equally distinguished in their respective spheres, whose acquaintance, first commenced as students, has now ripened into friendship so highly prized. When others in the profession read, as we doubt not they will, this second volume of fiction by Pen Oliver, they will feel, as we have done, that the author has a wide sympathy for other and less distinguished members of the profession which he has himself adorned and elevated by his own career; for one of the characters in his work is a country doctor, Archibald Hamilton, "the chief—it might be said the only—medical man in Laxenford," a supposed country town in Suffolk. Sir Henry Thompson's description of Archibald Hamilton would apply to many a provincial practitioner:—

"He is indeed a good specimen of the metropolitan medical teaching of his epoch..... As not unfrequently happens to many a good student, a curriculum which consumes not less than seven years, counting from the date of leaving school, during which earnings are rarely possible, may consume also a large share of his patrimony, and necessitate an entry on remunerative occupation without long delay. Men of parts, who if they had capital to support the cost of living in London for a few years might pursue laborious scientific inquiry and rise to high distinction, are often compelled to devote themselves to the routine of professional life in the provinces, where, under conditions very favourable to health, a moderate livelihood, amid fair country society, may be speedily acquired. Nevertheless, much assiduous work must be accepted with small remuneration for several years before a position of comfort can be attained. Thus it is, happily for the inhabitants of many an outlying country district, that the local doctor is a man of considerable knowledge, with broad views, a good observer, and prompt to act judiciously in emergency. There are many men thus situated who are the equals in ability to some of the best in the metropolitan area, although in the country they have of course missed opportunities for improvement which city life would have afforded them, had they been able to remain within its influence."

We hope, too, most country doctors are as fortunate as the practitioner at Laxenford in their "other self and better half," who awaited her husband at home with a pleasant welcome after the toils of the day, and parted with him on a second summons to duty, "while a kiss or two played hide-and-seek in the silky mazes of the luxuriant brown beard"—to "work, moreover, much of which is never paid for and

never expected to be, but by the gratitude of the indebted." But it is not to a description of the routine life of a country doctor that the work is devoted, but rather to the influence for good which a sound scientific training and high moral tone can exercise in a country district among all classes of society. The country labourer whose "missus is took bad" finds in him both doctor and friend, and my lord and lady of "Laxenford Hall" value his friendship not less than their poorer neighbours. "Signs of family trouble at the Hall set in"; and it is in smoothing these and averting a terrible catastrophe that Dr. Hamilton plays a principal part. We will not enter more into detail, but recommend our readers to peruse this pleasant production of Sir Henry Thompson's leisure. It is admirably illustrated by woodcuts, sketched by the author himself, of which "the doctor's house at the corner of High-street" is one of the prettiest.

OUR LIBRARY TABLE.

Catalogue of the Pathological Museum of the Western Infirmary, Glasgow. Compiled by JOSEPH COATS, M.D. Glasgow: A. Macdougall. 1885.—A good catalogue is an indispensable requisite for every museum, and it is gratifying to find that this fact has of late years received so much recognition at the hands of curators of the various valuable pathological collections in the metropolis and elsewhere. The latest addition to such volumes has been compiled with a care and accuracy which deserve imitation; and Dr. Coats has, whenever possible, supplemented the descriptions of the specimens with an outline of the clinical history of the cases from which they are derived. The Museum of the Western Infirmary of Glasgow appears to be one of great excellence, containing many specimens of rarity as well as abundant examples of the more common types of disease. Amongst the former may be cited: A specimen of fracture of the patella with ligamentous union after wiring, death occurring from fracture of the skull seven months after operative measures; one of a remarkable cyst of the head of the fibula; one of hernia of the pericardium; two of obstruction of the thoracic duct with chylous ascites; one of double uterus; two of tuberculosis of the Fallopian tubes and uterus; one of round-celled sarcoma of the thyroid penetrating the trachea. The series of specimens of diseases of the organs of circulation, especially of cardiac valvular disease and of aortic aneurysm, and that of lung disease, are particularly rich; whilst the specimens of uterine and ovarian tumours and of urinary calculi are numerous and varied.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland, 1885.—The chief contents of this volume are: The Study of the Physiological Action of Drugs, by Dr. Newell Martin; Rectal Medication, by Dr. Cattrell; Report on Six Cases of Penetrating Gunshot Wounds of the Abdomen, by Dr. Randolph Winslow; Observations on the Origin and Cure of Hay Asthma, by Dr. J. N. Mackenzie; Carbon as an Antiseptic Dressing for Wounds, by Dr. David Stewart; Hard Chancre of the Tonsil, by Dr. Frank Donaldson; the Report on Surgery, by Dr. R. W. Johnson; that on Antipyrine, by Dr. J. S. Lynch; the Report on Obstetrics, by Dr. J. Morris, and on Gynæcology, by Dr. S. E. Neale; Report on Materia Medica, by Dr. E. F. Cordell; the Tonic Effects of Travel, by Dr. Van Bibber; Disposal of the Dead, by Dr. Rohé; Cocaine in Ophthalmic Surgery, by Dr. H. Harlan.

The Light of Life, or the Secrets of Vegetable and Animal Development Detected and Explained in Strict Conformity with Known Natural and Chemical Laws. Edited by JOSEPH JOHN KAIN. London: Wyman and Sons.—An inquirer after knowledge taking up this work, the title of which is calculated to raise the expectations to a considerable height, will, after getting somewhat mystified with the first chapter, on glancing at the second, entitled "Man Formed from a Centre—Man a Fruit of the Earth and Air," be interested to learn that "the centre" is the umbilical cord, and that man's first form is moulded and apportioned to the "three sides of the triangular figure of the womb." If this information is insufficient and the remaining pages be turned over, the reader will learn that germs do not cause disease; that vaccination is useless; that atmospheric pressure is the cause of the circulation, and friction of the corpuscles against the walls of the vessels produces animal heat.

The Pytchley Book of Refined Cookery and Bills of Fare. By Major L——. Pp. 280. London: Chapman and Hall. 1885.—This book appears to us to supply a want by furnishing a number of bills of fare for nice small dinners within the compass of men of ordinary means. The quantities required for the different dishes are given with a due regard to the prevention of needless waste, and in plain language. The bills of fare, which appear to have been drawn up with good judgment, are given in French and English—at least that was the author's intention; but many of the French names of the dishes are clearly wrong, and we are hardly prepared to acknowledge "beignet au parmesan" and "marrow aux fine herbs" as English. If the book reaches a second edition, and we think it deserves to do so, it is to be hoped that the author will have the names revised. At the end of the book there is a most excellent chapter on wines and their service.

Dictionary of National Biography. Edited by LESLIE STEPHEN. London: Smith, Elder, and Co.—We have received the sixth volume of this work. It includes biographies from Bottomley to Browell, and in every respect is equal to the preceding volumes, of which we have at the time of their receipt spoken in highly laudatory terms. When completed, the work will be an invaluable addition to a library.

The Therapeutic Gazette.—This is a monthly journal of physiological and clinical therapeutics. It contains a vast amount of information, specially valuable for men in actual practice. It has met with great success in America, and we venture to think its reasonable price (two dollars a year) and its practical character will commend it to the general practitioner and others in England.

New Inventions.

GLASS PIPES IN SANITATION.

FOR years past this idea has been mooted, though never yet successfully carried out in practice; but we are pleased to observe that it is now perfected by the Cooper's Patent Glass-lined Tube Company at their works, 3, Dyer's-building's, Holborn. The samples submitted to us prove that glass pipes from ½ in. diameter upwards, and lengths from 1½ in. to 6 ft., inserted into wrought iron pipes of any bend or angle required, and secured therein by rigid cement so as to be practically homogeneous, will withstand any alternation of heat and cold, from 212° F. to 32° and lower, cannot, when fixed, be broken by any accidental mechanical violence, are hermetically sealed in their entirety, and so seem specially adapted to the requirements of breweries, laboratories, chemical manufactories, large milk establishments, and numerous other applications in the arts. While for all hygienic purposes they are immeasurably superior to the tin-lined lead pipes, which until now have been recommended, for the conveyance of water, and especially good soft water, in its pristine state of purity, from its source to its delivery.

THE AURAL RESERVOIR.

THERE are certain inconveniences connected with the syringing of an ear. The surgeon wants both his hands free—one to work the syringe, the other to draw the auricle upwards, backwards, and outwards. Therefore an assistant is required to hold the receiving vessel. Then the patient's neck is encircled by a towel, which fulfils its purpose indifferently, and the patient goes home with a clammy neck and a demoralised collar. Messrs. Arnold and Sons have made at my suggestion an appliance which I find greatly facilitates the procedure. The aural reservoir consists of a cup, the back of which is flat and prolonged upwards, forming an ear-piece, through an opening in which the ear to be syringed is passed. It is provided with a stout wire handle, by which *the patient* holds it *in situ*. It is best held by the hand opposite to the side on which the ear is being syringed, and not by the hand of the same side, as represented in the accompanying figure. The advantages of the aural reservoir are—

1. It enables one to syringe an ear without the aid of an assistant. 2. It effectually prevents the least drop of water from trickling over the patient's neck. 3. It is simple, unbreakable, and cannot get out of order. It is made of tin, bronzed and enamelled, and comes up to the usual artistic finish of Messrs. Arnold's work.

M. J. MOLONY, L.R.C.P., L.R.C.S.,
Surgeon, Arklow Quarries, &c.

LACRYMAL SYRINGE AND COCAINE HYPODERMIC INJECTOR.

THESE instruments have been made for me by Messrs. Pickard and Curry for applying solutions to the lacrymal sac, and are represented in the accompanying illustration, lying in portable case. The syringe was originally designed to enable patients themselves to inject medicated fluids directly into the tear-bag, and I have found it of great assistance in thus treating severe cases of dacryo-cystitis which had previously remained unrelieved. Both syringe and injector are also specially serviceable for the application

of cocaine in ophthalmic operations, as iridectomy, tenotomy, enucleation, &c.; for when charged they can lie on a tray ready for use with other instruments. The rubber can be easily removed, the several portions cleaned and rendered aseptic, whilst the contents of the glass bulb can be seen and estimated. The advantages of cocaine as a local anæsthetic are so great and so often demanded in all departments of surgery that the convenience and economy secured by the use of these little instruments will be at once understood and appreciated.

Tunbridge Wells. G. ABBOTT.

THE REPORT ON THE DOGS' HOME.

THE report of the Committee of the Dogs' Home, read at the public meeting on Wednesday, is quite a national document in relation to the "friend and companion of man." In the year 1885 the Home received no fewer than 25,578 of these animals, of which 25,228 had previously been run in by the police and then brought to Battersea. Of the whole number 2236 had new homes found for them, and 2379 were restored to their owners. The remainder, amounting to 20,963 unclaimed, received their euthanasia in the lethal chamber, of which the committee reports "that it has admirably fulfilled all the predictions made in its favour by performing its work with admirable precision, never showing the least failure as a humane agent, but invariably and with perfect efficiency putting to death by a painless sleep each and every animal placed within its walls." To have saved all pain of death to over twenty thousand dogs in one year is something in the history of civilisation that may on a future day rank as a fact worthy of more than the passing note that must now be given to it; but it is right to indicate that as many as 146 persons residing out of London sent animals to the chamber, some from long distances, two from Scotland.

In connexion with the necessary killing of dogs at the Home the report mentions an act of grace on the part of the Queen. By the statute the animals need only be kept living three days, a period in the opinion of Her Majesty too short. The Committee has, consequently, extended the period to five days before sending the animals to the lethal chamber, except in the case of animals that are diseased.

The report is specially interesting on another topic—that of rabies. In the year 1885, 60 dogs suffering from rabies were killed at the Home, or just four times the number of 1884. These rabid animals were found in the various months of the year as follows:—In January, 2; February, 4; March, 4; April, 2; May, 5; June, 6; July, 7; August, 5; September, 2; October, 4; November, 9; December, 10. Mongrels, 15; half retrievers, 2; half collies, 2; half Skye, 1; half pug, 1; half pointer, 1; half setter, 1; half Dalmatian, 1; retrievers, 13; collies, 4; spaniels, 4; fox-terriers, 3; greyhounds, 2; lurcher, 1; poodle, white, 1; St. Bernard, 1; Pomeranian, 1; Dachshund, 1; black and tan, 1; Scotch terrier, 1; bull terrier, 1; Bedlington, 1. Of these, 54 were males and 6 were females. These cases were carefully noted in the first instance by the officers of the Home, and afterwards certified by the honorary veterinary surgeon.

The Committee expresses an opinion that it is desirable, in order that the statistics of rabies may be made trustworthy and complete, that the bodies of dogs alleged to be rabid, whether killed by the police or other persons, should be examined by a veterinarian, who should report to a Government department the result of his post-mortem investigations; also, when a dog exhibits signs of rabies at a police station, instead of a police constable being told off to kill it, a veterinarian should be called in, and in the event of his certifying that the dog is rabid, then the animal should be destroyed by him in a merciful manner. Such measures would, it is believed, materially allay panic in the public mind during the prevalence of rabies by checking and correcting erroneous and exaggerated impressions generally circulated at such times; for it is notorious that the most appalling ignorance exists generally throughout the country as regards the nature and symptoms of rabies. The Committee hope that some such arrangement may be made by the Government, and are glad to state that recently it was ordered by Sir Edmund Henderson, late Commissioner of Police, that a test of this kind should be made as regards a given number of dogs destroyed by the police in the streets of London, whose bodies will be submitted to Mr. A. J. Sewell, the veterinary surgeon to the Home, for post-mortem examination. We need not say that we concur heartily with these sensible propositions, and indeed we feel that the whole report is of a tone which commends itself to the scientific as well as to the philanthropic world.

On the 25th ult. Major Tulloch, one of the inspectors of the Local Government Board, held an inquiry relative to an application by the Cheshunt Local Board of Health for permission to borrow £38,800 for carrying out works of sewerage and sewage disposal.

THE LANCET.

LONDON: SATURDAY, APRIL 3, 1886.

"THE President of the Royal College of Physicians of London shall be elected annually, on the day after Palm Sunday, as required by the Statute 23 & 24 Vict. c. 66, s. 6." So runs the wording of the thirty-ninth bye-law of the College of Physicians, and accordingly a fortnight hence the Fellows will be required to perform a duty which in the present year may be fraught with great consequences both for the College and the profession. The present distinguished occupant of the presidential chair was elected to that office in 1881, and during the past thirty years the President has usually been re-elected annually until he has completed a term of five years. Thus Dr. THOMAS MAYO was first chosen in 1857; he was succeeded in 1862 by Sir THOMAS WATSON; to whom followed in order, in 1867, Sir JAMES ALDERSON; in 1871, Sir G. BURROWS; in 1876, Sir RISDON BENNETT; the only exception to the five years' term being in the case of Sir JAMES ALDERSON. We fully admit that, as a general rule, it may be wise for the Fellows not to permit their President a longer term; so much is required of him that it is hardly just to him to request his longer occupancy of the chair; and the longer it is held by one individual the less are the chances of the office being transferred to any of his contemporaries. Still there are occasions when the interests of the College and the still wider interests of the profession may demand the prolongation of a tenure of office, the transfer of which to other hands might conceivably disturb the continuity of a policy which the outgoing President had initiated. In the same manner the College might on occasion exercise its undoubted right, and considerably curtail the customary period of office in the case of a President who had shown himself out of harmony with the wishes of the College. There are precedents in plenty for the prolonged tenure of office, and although they date back to times when the College had but slight relations with the outer circle of the profession, and when consequently its affairs were less interesting and more stagnant, still to those who adhere to precedent the fact may be reassuring. Thus Dr. JOHN LATHAM was President for seven years, being only fifty-two years of age on his first election (1813); his successor, Sir HENRY HALFORD, held office for twenty-four years (1820-44), and Dr. PARIS, who followed, for thirteen years (1844-57), both Sir HENRY and Dr. PARIS filling the office to the time of their death.

It may be asked whether there is any reason why the customary limitation of the years of presidency should on the present occasion be set aside? The Fellows, whose duty it is to elect their President, know well that the College of Physicians has of late years advanced considerably beyond its former restricted limits, and has taken a much larger share in the education of the body of the profession than before. We have often pointed the moral of its conjunction "for examination purposes" with the College of Surgeons. The credit of this salutary change, so far as the College of Physicians is concerned, must be ascribed to Sir W. JENNER and Sir H. PITMAN. The scheme is yet young; it must probably be still further modified in detail; and it seems a pity that its prosecution should be handed over to others, unless, indeed, the presidency could be held by Sir H. PITMAN, whose services as Registrar would then be lost to the College. Again, a few months ago the College determined by a large majority that facilities should be found for enabling those candidates who had qualified at the hands of the Conjoint Board to obtain medical degrees. Is this question to be allowed to lapse because it may chance that an incoming President may be out of sympathy with a movement which is almost unanimously supported by the teaching body in London? Once more, the College in its educational function ought to be so directed as to lead opinion in the framing of the curriculum, and it should therefore possess as its head one who is thoroughly alive to the needs of modern medical education and the capacities of the student. We trust the time is not far distant when the teaching institutions will be to a certain extent controlled and directed by the College, that there may be some guarantee of efficient teaching. The government of the College ought then to be placed in the hands of men who are conversant with all these matters, and who can deal with them as they should be dealt with.

We are conscious that it might be said we are laying too much stress upon the educational aspect of the functions of the College; but this is only because the place the College takes in medical education has grown in importance. If the Fellows as a body recognise this, and desire that the work initiated by the present President should be carried on, let them return him again with so united a voice that he must bow to their decision. Should Sir WILLIAM JENNER consent thus to continue to give his services to the College, not only would the prosecution of educational reform be assured, but the Fellows would be relieved of the very serious difficulty of selecting a new President from amongst those who, having already filled high office in the College, are entitled thereby, as well as by their reputation, to attain the highest office, but respecting whose views upon the pressing questions of the day all is uncertainty. Several names are being mentioned, but with one or two exceptions the physicians thus indicated have not clearly and boldly taken a stand upon the policy which was foreshadowed in the division of January last, or would give that stimulus to its prosecution which would ensure its success. Therefore we think that the approaching election is of great moment. Upon its issue depend the future position of the College and the prosperity of medical education in the metropolis. The new President might be a man of established fame, one who in less critical times could worthily stand as the leading representative of British medicine; but unless he is prepared to guide the College onwards in the path upon which it has entered, it were far better that he were not chosen, and that one who has perhaps less exalted claims should be preferred. It is a critical time, and we shall anxiously await the result of the voting on the 19th. It is perhaps unfortunate that the mode in which the election is conducted precludes any opportunity for the Fellows to become acquainted with the precise views held by the possible recipients of the honour before the vote is taken. It is

incumbent, nevertheless, upon every Fellow to support a physician who, being otherwise eligible, has sound knowledge upon the actual state of medical education, and who has shown himself in sympathy with the most urgent question of the day in respect to the qualification of medical men. We trust, however, that the Fellows will not at present determine to which new candidate their support shall be given, as we have strong reason to believe that, under the very special circumstances existing at present, Sir WILLIAM JENNER might be induced to accept the presidency for another year.

THERE is, we fear, too much reason to apprehend that by the time the Lunacy Bill introduced by Lord Chancellor HERSCHELL reaches the House of Commons, if that stage of progress should be reached, it will be little better than a technical amendment of the law relating to the custody of lunatics, and not worth carrying further. While protesting his dislike of the private asylum system, his Lordship is yielding at all points to the pressure brought to bear on behalf of the asylum proprietors, and the prospect that this objectionable system will be speedily or even remotely superseded is daily becoming less hopeful. It is easy to understand that the position of the Lord Chancellor is a trying one, but we had thought that he was made of sterner stuff than previous occupants of the Woolsack, and might be trusted to hold his own, even though the pressure were even greater than it has proved. If Lord HERSCHELL had taken courage to adopt our proposals in their entirety, and left the House of Commons to buy up the existing licensed houses by the creation of guaranteed stock, redeemable by terminable annuities, no wrong would have been done to vested interests, and a decent end might have been once for all made of a great and grave cause of scandal and difficulty, without any direct appeal to the Chancellor of the Exchequer or to the ratepayers. The notion that heavy expenditure would have been necessary in the counties and boroughs to provide accommodation for private patients in connexion with public asylums or the purchase of private houses is groundless, and we cannot but feel that the Lord Chancellor has been ill-advised in attaching any importance to the apprehension. The concession that licences may be renewed or even transferred to successors, or in certain cases to new houses, stultifies the whole measure so far as the extinction of the system is concerned. It cannot possibly die out—at least within any reasonable time—under the relaxed conditions these "amended" provisions create. The Lord Chancellor may have formally placed the rope round the neck of the system, but he has undertaken to leave it quite loose; and he has, moreover, politely removed the drop, so that there is really no reason whatsoever why the condemned should not enjoy a long and happy life, even doing a thriving trade with the aspirants to successful commercial enterprise in the "specialty" of keeping lodging-houses for the insane.

Nor can we regard with satisfaction the encouragement given to the practice of detaining single patients in private houses without adequate supervision. It is manifestly impossible that single patients can be visited at sufficiently short intervals by the present staff of visitors; and we must confess that, looking to the whole of the case, we are by no means disposed to recommend any increase in the number of those essentially useless public functionaries called Commissioners in Lunacy. If the number of these officials were trebled, or even quadrupled, it would not be practicable for them to exercise anything approaching to a real supervision of the insane in private families. There is a too great tendency, even on the part of reformers, to look at this matter from a private and personal point of view, and then to press the notion formed—which is actually, though unconsciously, a selfish one—on the consideration of statesmen, as though it were worthy of being embodied in an Act of Parliament. Stripping the veil off the defence, or even desired extension, of the system of single patients, what do we find? Simply this: that it is a very convenient arrangement for a young or impecunious practitioner of medicine to receive a single patient under his care at a high rate of payment, for which he is supposed to render special services! As a matter of fact, we believe the large class of single cases under the care of medical men are neither well cared for nor advantageously placed as regards treatment. The Legislature, if it is to carry out a genuine and serviceable reform, must shake itself loose from the trammels of that influence which is just now being most sedulously brought to bear upon it by the representatives of the "specialty" in high places, and try to take a common-sense and thoroughly practical view of the needs of the public question. The medical profession as a whole—and it is for this we speak—will be well satisfied with a measure which is framed to place the care and cure of the insane on a simply and purely rational footing; and it will be finally satisfied with nothing less than this. We are of opinion that medical men should be practitioners of medicine, and nothing else. In respect to the scientific practice of medicine in all, or any, of its branches, they are in the position of labourers worthy of their hire; but neither as keepers of hotels or lodging-houses for the insane, nor as boarders of weak-minded folk in private families, ought the members of a profession which, above all others, needs to keep itself above suspicion of mercenary motives, to gain by the care of lunatics. This is the principle we have laid down, to which we have uniformly adhered, and which we are resolved to maintain.

A FURTHER step has recently been taken towards the development of the medical school at Oxford. Influenced by the success of the Cambridge School, the authorities have at last found it necessary to pass some new regulations which will materially lessen the time required for the attainment of the M.D. degree. The student can now present himself for the M.B. examination at any time after he has taken his Bachelor of Arts degree, instead of having to wait for four years as formerly; and, similarly, instead of waiting for his M.D. degree for three years after he has taken his M.B., he need now only have entered on his thirty-ninth term after matriculation, and have had his name on the books of one of the Colleges or Halls, or on the register of non-collegiate students, for twenty-six terms, to be eligible for admission to the higher degree. In fact, the University standing for the M.D. degree is now the same as for the M.A. Degrees in Surgery are instituted for the first time, and every candidate who is admitted to the degree of M.B. will *ipso facto* be admitted also to that of B.S.,

whilst he may obtain the Mastership in Surgery in the twenty-seventh term from his matriculation. The regulations for the examination and the composition of the Board of Examiners have also undergone extensive alterations. If the subjects taken by the candidate for the B.A. degree have not included scientific subjects, such as Physics, Chemistry, or Animal Morphology, a preliminary examination in Science must be passed. The special subjects of the first examination for the M.B. degree are Organic Chemistry in its special relation to Physiology and Medicine, Human Anatomy, and Human Physiology. Special exemption is permitted in Organic Chemistry and in Human Physiology if the candidate has already been placed in the first or second class by the examiners in the School of Natural Science in Chemistry or Animal Physiology respectively. Organic Chemistry may be taken by itself, and Materia Medica and Pharmacy may likewise be separated from the subjects of the Second Examination. These subjects are: Medicine, Surgery, Midwifery, Pathology, Forensic Medicine and Public Health, and Materia Medica and Pharmacy. The passing of these two examinations will give the degrees of M.B. and B.S. The M.D. degree will be conferred after the reading of a thesis on a subject connected with the Science and Practice of Medicine, and must include the history and literature of the subject treated of. For the Mastership in Surgery a special examination will be held in Surgery, Surgical Anatomy, and Surgical Operations. For the conduct of the First Examination five examiners will be appointed—viz., one in Organic Chemistry, two in Anatomy, and two in Physiology; whilst for the Second Examination eight will be required—viz., two for each of the subjects of Medicine, Surgery, and Midwifery, and one for Pathology and Materia Medica respectively; Forensic Medicine and Public Health being conducted by the examiners in Medicine, Surgery, and Midwifery. The Regius Professor or his deputy is to act on both boards as senior examiner, and the examiners will be elected for three years. By these statutes the University has brought itself again into touch with modern systems of teaching and examinations, and the liberal and wise spirit in which they have been drawn up speaks well for the future of the Oxford School. It is another victory for science over classics in modern education; for every student who intends to take a medical degree will have a distinct advantage if he takes his B.A. in Natural Science rather than in Classics.

WE are not disposed to criticise or even to analyse Medical Bills not before Parliament. For purposes of criticism a Bill is non-existent till it is introduced. This is a useful and obvious rule, on the score alike of convenience and courtesy, in ordinary times. In such a crisis as the present it is of more than ordinary usefulness. In view of the introduction of the Medical Bill, we may do better service to the cause of true medical reform if we recall roughly the history of the question, and the points in which there has been the greatest unanimity of opinion. The two chief facts in the history of the question are that the subject has been investigated by a Select Committee of the House of Commons, and by a Royal Commission of the first quality as regards authority. The work of the Select Committee was cut short by a change of Parliament and of Government. The evidence taken was of much interest. But the committee was dissolved, with the Parliament, before it had time to make any recommendations. And to the last Government of Mr. GLADSTONE the subject appeared of such consequence as to justify a Royal Commission consisting of the following gentlemen:—The Earl of CAMPERDOWN, the Bishop of PETERBOROUGH, W. H. FORD COGAN, Sir GEORGE JESSEL, GEORGE SCLATER BOOTH, Sir WILLIAM JENNER, JOHN SIMON, THOMAS HENRY HUXLEY, ROBERT MCDONNELL, WILLIAM TURNER, and JAMES BRYCE. If such gentlemen as these did not "scamp" their work the Bill to be introduced by Her Majesty's Government should take their opinions into account. Did they "scamp" their work? Let us hear their own account of their stewardship:—

"We, in obedience to your Majesty's commands, have inquired into all the subjects committed to us for consideration. We have held forty meetings. We have called before us such persons as we have judged necessary, &c. ..... We have examined books, documents, papers, and records. ..... We have also had before us the evidence of the Select Committee."

Clearly, then, this Royal Commission did not "scamp" its work, but went somewhat thoroughly into it. We may now ask what were the leading suggestions of that painstaking Commission? They were two—viz., a reduction in the number of licensing authorities, and a reduction in the size of the General Medical Council. On the first question we must give from the Report of the Royal Commission an extract, which will not only show its opinion, but that of the gentlemen examined. The figures attached to their names in the foot-note give the reference to their evidence:—

"It will be found that for many years a Common Board for licensing has been very generally advocated, even by those whose opinions on other points of medical reform differ most. A proposal to form such a Board for England has been agreed to by all the English medical authorities, and on two occasions approved by the General Medical Council; and a similar proposal for Ireland was also agreed to by nearly all the medical authorities of that country. The principle of a Common Board was introduced into Lord Ripon's Bill of 1870, and has found a place in all the later Government Bills. It has also been advocated by a large majority of the witnesses who have appeared before us.[1] It is our opinion that the holding of a licence ought to be conclusive evidence of sufficient proficiency in medicine, surgery, and midwifery. After a long and careful inquiry, we have arrived at the conclusion *that such a standard of proficiency can only be ensured by reducing the number of licensing authorities.*"

The next great reform recommended by the Royal Commission was a reduction in the numbers of the Medical Council, while at the same time providing for the direct representation of registered practitioners. The reduction was procured by a method which we have always advocated—that of abolishing the representation of individual bodies, and giving a certain number of members to the medical authorities in each division of the kingdom acting

1 *For:* Acland, 22; Sir J. Paget, 210; Erichsen, 655; Professor Paget, 849; Humphry, 1153; Jacob, 1376; Glover, 1903; Marshall, 2386; Byass, 2804; Waters, 2982; Gamgee, 3225; Semple, 4008; Pitman, 3705; Macnamara, 4186; G. Y. Heath, 4405; Morris, 4803; Cooke, 4919; Barton, 5040; Moore, 5446; Richardson, 5606; Collins, 5704; Quain, 6757. *Against (or do not support):* Scott Orr, 2281; Haldane, 2640; Spence, 3438; Gairdner, 4752; Stoker, 5238; Finny, 5290; Struthers, 5980; Redfern, 6049; Fraser, 6260; Haughton, 6451; Young, 6575.

in a group. Clearly this is the right course to take. To leave the existing individual representation of bodies almost intact would be to neutralise and overpower any three or four direct representatives of the profession, as well as to make the Council more unwieldy and at the same time costly. We are aware that the Commission was not unanimous on these points. But the two points were supported by Lord CAMPERDOWN, Mr. COGAN, Sir GEORGE JESSEL, Sir WILLIAM JENNER, and Dr. MCDONNELL, and they are advocated by the great bulk of the profession. We cannot forget them or say that a Bill which does not secure them will meet the demands of the case, or the just and wise expectations of the profession.

AT a public meeting which was held last week at the Mansion House, Cardinal MANNING made reference to the evidence which was given before the Royal Commission on the Housing of the Working Classes, and to the conclusion of the Commissioners, that while ample machinery and legislative powers exist for the remedy of insanitary conditions in the metropolis, the great want is some body which would put the machinery in motion. This want, he pointed out, is now supplied by the Mansion House Council on the Dwellings of the People and its local committees, which take cognisance of all failures of sanitary administration throughout the metropolis, and, by making representations to the vestries and district boards, lead to their remedy. The effect of the work of the Council during the last year was that over six thousand well-founded complaints received the attention of the proper authorities. The Council have therefore conferred no small boon upon the metropolis, and have shown the various local authorities that an organisation exists which is ever watchful over the interests of those who have reason to complain that their representations have been unheeded.

This is, however, but the smaller portion of the good the Council have done during the year; the larger is the outcome of the communications they have addressed to the Secretary of State for the Home Department, who found therein sufficient reason for the holding of an inquiry into the sanitary condition of Clerkenwell and Mile-end Old Town, and into the manner in which the local authorities of these districts have performed the duties which devolved upon them by law. The report of Mr. CUBITT NICHOLLS, the inspector appointed by the Home Secretary, has just been issued with respect to Clerkenwell, and deals as thoroughly with the subject as could reasonably be expected of a gentleman not possessing a technical medical knowledge of public health. Mr. NICHOLLS visited all the houses concerning which complaints had been made by the Council, and considered the important questions of water-supply, of regulations for houses let in lodgings, and the need for action under the Artisans and Labourers' Dwellings Act. Clerkenwell possesses a large number of tenement houses in which the landlord is not resident, as well as cottages occupied by a similar class of tenant, the total number of houses to which regulations might be made to apply being nearly five thousand. The water-supply was found in many houses to be insufficient owing to the smallness of the size of the cisterns, and often to be liable to pollution on account of the method of storage in water-butts, and the only reliable remedy which would overcome these difficulties is, the report points out, the provision of a constant water-supply. Mr. NICHOLLS further recommends the regulation of all sublet houses in which the landlord is not resident, and of some proportion of those in which the landlord is resident. With regard to the Artisans and Labourers' Dwellings Act, he mentions a number of localities in which the operation of this Act is needed. The recommendations embodied in the report are approved by two members of the vestry who were associated with Mr. NICHOLLS in the inquiry, and it may be anticipated they will be adopted by the vestry. Should this happy result be brought about, we may expect to see the death-rate of this district, which is now two in every thousand of inhabitants above that of the whole of London, reduced by that amount, and that Clerkenwell will lose the unenviable reputation which it now possesses.

The effect of the acceptance of the principles embodied in the report will not, however, be limited to Clerkenwell. For years the vestries have been fighting against the necessity for exercising the powers with which the Legislature has armed them; it may be anticipated that they will, without exception, in a short time follow the example which we presume Clerkenwell is about to set them, and that, so far as house accommodation for the poorer inhabitants is concerned, London will be free from some of the reproach which it now deserves.

It is, however, a matter for regret that the scope of Mr. NICHOLLS' inquiry was not more comprehensive. The whole of the improvements which can be effected under Sir RICHARD CROSS's Act have been omitted from consideration, the details of the arrangements for the prevention of infectious disease have been passed over, the question of the use of underground rooms as dwellings has not been raised, and certainly the need in a parish constituted like Clerkenwell of frequent inspection has not been sufficiently appreciated. Mr. NICHOLLS' opinion that two inspectors could adequately perform all the duties which would devolve upon such officers under the various Acts of Parliament will not be endorsed by those who have had practical experience of public health administration in a large town. We cannot but think that in this respect the report is unfortunate, for it is liable to be regarded by negligent authorities as an excuse for their own actions, and certainly London would not gain thereby. But, apart from this, it may be said that sanitary work in the metropolis will receive a distinct impetus from the inquiry which has been held, and the Mansion House Council are to be congratulated on the success they have already attained; but they must not regard their labours as ended until the various recommendations are carried into effect.

WE have now entered fully into the spring of another year, and the time has come when we may fairly take account of the prospects of this country with reference to cholera. For three consecutive years cholera has prevailed as an epidemic either in or upon the immediate confines of Europe. Its prevalence in Egypt in 1883 was not followed by a second epidemic in 1884; but as to this we may observe that a second year's epidemic is more apt to follow on a comparatively trifling outbreak than upon a widespread epidemic such as Egypt suffered from three years ago. In

Spain, the outbreak of 1884 was but slight; but in 1885 the disease broke out again with exceptional violence, thus following the precedents so often observed before. On the other hand, an epidemic of very fatal virulence in the south of France and in Paris during the summer of 1884 did not succeed in preventing another fatal prevalence in the same country in 1885; hence it appears that cholera does not follow any very definite laws as regards its recurrences, and in forming a judgment as to the future, we must, in the main, be guided by other considerations.

The news of the past two months supplies us with material that calls for earnest consideration. Cholera has continued to prevail in several parts of Europe during the winter months, and this week's intelligence of its recrudescence in the mining districts about Bilbao in the north of Spain comes to remind us of a real danger to this country. For months past the disease has prevailed in a more or less sporadic form along the coast of the Adriatic, between Venice and Trieste, and also further inland; and occasional outbreaks have taken place in the extreme south of Spain, and in near proximity to Gibraltar. But these occurrences do not constitute so great a danger to this country as the existence of the disease along the north coast of Spain and about the coast of Brittany, from both of which districts there is an ill-regulated traffic carried on by fishing-boats. Both these districts have been affected at intervals ever since the termination of the great epidemic of last year, and the very imperfect information we have received concerning the extent of the mischief—and this especially from the French authorities, whose mistaken policy of prevention seems mainly to lie in hushing up the truth as to the danger which exists—prevents us from knowing precisely what it is that we have to contend with. But if it should happen that an uncontrolled diffusion of infection along coasts with which we are in frequent and in near communication should follow former precedents, and this year give rise to a widespread epidemic, then a danger will have arisen which exceeds any we have as yet experienced during the epidemic of 1883-86. We must remember that the last great diffusion of cholera, beginning in the summer of 1869, had a five years' course in Europe, and that there are strong indications that the epidemics of the two preceding years are but a part of another diffusion which has not yet ended. It is therefore imperatively important that the authorities of those districts which, notwithstanding warnings and teachings such as they have never before had the benefit of, have not yet got rid of the conditions favourable to cholera diffusion, should without further delay proceed with energy, and fit themselves to cope with imported infection.

AT a meeting of the members of the medical profession residing in Glasgow and the West of Scotland it was unanimously agreed to invite the British Medical Association to hold its annual meeting in Glasgow in 1888, and it was decided that various public bodies of the city and district be requested to co-operate in the invitation.

THE supporters of the repeal of the Contagious Diseases Acts are urging upon the Government the necessity of giving facilities for taking the next stage of the measure before the 8th inst., because they feel that after that date nothing can be relied on.

Annotations.

"Ne quid nimis."

INFANT MORTALITY IN LONDON.

WITH the lapse of each year from the date of the last census the element of doubt and difficulty in the way of estimating populations detracts much from the trustworthiness of local mortality statistics. This difficulty applies with especial force to the mortality statistics of the different metropolitan sanitary areas, with regard to which the official method of assuming that the rate of increase of population since 1881 has been the same as that which prevailed between the last two censuses would in many cases lead to obviously fallacious results. The rate of infant mortality measured by the proportion of deaths under one year of age to registered births affords, however, a test of sanitary condition which is entirely free from the difficulty above mentioned. It is satisfactory to find that this test supplies evidence of the improving health of the London population. In the ten years 1861-70 the rate of infant mortality in London was equal to 162 per 1000 registered births; in the following ten years the rate fell to 158, and in the first five years (1881-5) of the current decennium it further fell to 150. The rate in 1885 was equal to 148 per 1000, and was 13 below the mean rate in the twenty-seven provincial towns dealt with in the Registrar-General's weekly return, among which the rate ranged from 128 in Hull and 131 in Brighton and in Portsmouth, to 174 in Liverpool and in Salford, 175 in Manchester, 189 in Cardiff, 193 in Leicester, and 218 in Preston. Infant mortality in the various sanitary areas of the metropolis during last year showed almost as wide a range as it did among the twenty-seven provincial towns. The mean rate in the whole of Registration London was, as above mentioned, 148 per 1000. The lowest rates in the metropolitan sanitary areas were 110 in Hampstead, 112 in Plumstead, 121 in Woolwich, 124 in St. George Hanover-square, and 129 in Lewisham. The rates ranged upwards in the other sanitary areas to 176 in the City, 180 in St. Martin's-in-the-Fields, 184 in Stepney, 190 in St. Olave (Southwark) and in St. George's-in-the-East, and 196 in Holborn. These high rates undoubtedly point correctly to those parts of the metropolis in which the social and sanitary condition of the population is most inimical to infant life, and there is little risk in assuming that the death-rates at other groups of ages in these sanitary areas would afford relatively unfavourable comparison with those prevailing in other parts of the metropolis.

THE PHYSICIAN AND HIS CULTURE.

IN his autobiography—a delightful book to be read and re-read by every aspirant to the career medical—Sir Robert Christison makes some pregnant remarks on the study of Greek and Latin, and incidental observations on the attempt to supersede these languages in professional nomenclature. Traversing ground invariably occupied to a greater or less extent in the introductory lectures of our medical schools, Sir Robert runs counter to much of the advice with which on these occasions the young audiences are entertained. In reply to the contention that the study of the classical tongues "is for the most part a mere effort of rote memory, encumbering rather than strengthening the mind," he adds the weight of his experience and authority to the counter-argument, "that of all the studies suitable for boyhood there is no other which is so likely to strengthen the memory, imagination, attention, and judgment, so certain to instil taste, so useful for imperceptibly infusing an accurate and ready use of English, or so indispensable as the groundwork for acquiring modern tongues." Again, as to the assertion

that "the use of terms taken from the dead languages is the mere survival of a bad custom," and that "these terms could be expressed as easily and far more elegantly in English," it may be enough to quote what Sir Robert says of the attempt made in the latter direction by so accomplished a physician as the late Dr. Craigie:—"His practice of physic presented one novel feature, inasmuch as he tried to affix to every disease a vernacular name, which, strangely for one of his usual Latinised diction, he strove to deduce from Saxon roots. His readers may be amused with such attempts at nomenclature as 'scaly tetter' for psoriasis, 'tedious blebs' for pompholix diutinus, 'knobbed nettle-rash' for urticaria tuberosa, 'rank red gum' for strophulus confertus, 'horny fishskin disease' for ichthyosis cornea, 'prominent limpet shell scab' for rupia prominens. But no one espoused his English nomenclature, and British medicine still recognises these abominations by their Latin names only." But, in truth, Sir Robert's position is no more than that persistently maintained by men of "the complete professional mind," to use Sir Henry Acland's felicitous expression, who agree with Hamilton and Mill that even the schoolmen discharged a most useful and indispensable function in adapting and refining the delicate instrument of language, and who see no gain either to English or to science by substituting for the "impenetrability of matter" the "unthoroughfaresomeness of stuff."

CORROSIVE SUBLIMATE IN DIPHTHERIA.

DR. WERNER, medical officer to a circumscribed factory population of about 2000 near Narwa, in the Gulf of Finland, writes in the *St. Petersburger Medicinische Wochenschrift* describing the satisfactory results he has obtained in diphtheria by treatment with perchloride of mercury internally, combined with ichthyol inunctions. The disease is very frequent and fatal in the locality, he having attended during the last six years ninety cases, the average mortality of which was between 60 and 70 per cent., the majority succumbing from general weakness when the local affection was passing off or after it had quite disappeared. Last year the type was peculiarly severe. In July, August, and September eleven cases occurred, of which no less than nine proved fatal. From the end of September to the present time, however, during which period there have occurred seventeen cases, all of which were treated with perchloride of mercury, and many of which were very severe, there were only two fatal cases, neither of which was seen till a few hours before death. The author's method is as follows: For young children he dissolves a quarter of a grain of the perchloride in 4 oz. of water, for children of six or seven half a grain in 6 oz. of water, and for adults three-quarters of a grain in 8 oz. of water. This solution is given to the patients while they are awake every twenty or thirty minutes, in measured doses, so arranged that the quantities made up shall last from twenty to twenty-four hours—i.e., about half a drachm in the case of young children and a drachm in that of adults. When a good deal of sleep is obtained larger doses are given at longer intervals. As a rule only milk is allowed as nourishment. If considerable pyrexia exists, an enema of from ten to thirty grains of antipyrin, according to the age of the patient, is given, the rectum having been previously cleared out. Externally ichthyol is diligently rubbed in over the swollen glands three or four times a day, the fingers being wetted with water when dry to permit of the rubbing being continued for some time. For the first two days of this treatment the local affection usually undergoes no improvement, but on the third day it begins to diminish and the general condition becomes better, the appetite increasing and the children regaining their wonted spirits. In no case did the author meet with the extreme debility which was frequent in cases treated by pilocarpine, even when the local affection was decreasing. As the patients approached convalescence the medicine was diminished, so that more than six bottles were never required. Complications never occurred, though three of the patients had previously had scarlatina.

PAROCHIAL NEGLIGENCE.

THE long-suffering ratepayer in Marylebone has at last rebelled against the neglect of the vestry of that parish to remove his house dust. For some time the inhabitants of this district have not only been put to the greatest inconvenience, but have had their health endangered through the neglect of the sanitary authority. A complaint made by Dr. Edis to the magistrate of the Marylebone Police Court has been the occasion of an outcry which, we trust, will awake the vestry and their officials to a knowledge of the fact that there is a limit even to the endurance of the London citizen, and that if they would avoid a scandal to which their negligence has given rise they must alter their procedure. Marylebone, like many other parishes, contracts for the removal of house refuse, and hands over the dependent householder to "the mercy of a set of irresponsible dustmen, who levy blackmail and exert their petty tyranny over domestics." Dr. Edis's complaint has been echoed by his neighbours, and we are convinced that the suffering has by no means been limited to those who have joined in his protest. The householder is prohibited under penalty from permitting any other person but the parish dustman to remove his dust, and as a rule does not know of any remedy when the dustman fails to appear. But Mr. Cooke, the magistrate to whom complaint was made, has promised to grant a summons and probably impose a heavy penalty if the vestry or their officer fail to provide the necessary relief; and this promise we may be sure will not be forgotten. The foolish custom which only compels the dustman to announce his presence in the street "in an audible and distinct voice" is altogether insufficient, and nothing but a weekly call at every house should satisfy the ratepayer. The contract system is one of the worst outcomes of vestry government, and there is no practical solution to the difficulty except that the vestry should undertake the duty themselves of removing house refuse.

ON THE MOVEMENT CURE IN CHINA.

AN amusing and interesting article has been contributed by Dr. Macgowan to the Medical Reports for China for the half-year ending March 31st, 1885. P'An Wei, the present Governor of Hupeh, wrote, in 1858, a *brochure* on Important Life-maintaining Methods, which gained him much renown, causing him to be sent for on the occasion of the fatal illness of the late Empress. The accumulation of air in the system by swallowing the breath was regarded as an important method of prolonging life by the ancient Chinese. Ch'ih Sung-tzu, a legendary personage, is said to have been the author of this method; he flourished for a period of at least twelve centuries somewhere about 2600 B.C., when the Yellow Emperor sought instruction from him in the art of prolonging life. Leihtzu, the immediate disciple of Laotzu, inquired of Ch'ih Sung-tzu, the custodian of the writings of his master, how the power of traversing the air, of living unscathed in fire, and the like, might be acquired, and was told that it was neither by wisdom nor skill, but through support by the vital aura, by which was understood to mean breath-swallowing. A man who is permeated with the vital aura is invulnerable. Disease appears only when vitiated air can find entrance or when the circulation of the vital aura is defective. The air starts in its circulatory movement from the "little heart," which is situated in the pubic region.

Without fire this aura is the source of animal heat; without water it lubricates the viscera. The object of postures, motions, and frictions is to promote the due circulation of the vital air. A massage bat and massage pestle were employed in equalising the aura throughout the body; illustrations of these tools are given in Dr. Macgowan's account.

MUSCULAR ATROPHY OF CEREBRAL ORIGIN.

HEMIPLEGIA of cerebral origin is sometimes attended with decided wasting of the paralysed muscles. M. Cornil, in 1864, found that the nerve trunks in these cases had their fibrous sheaths much thickened, whilst the nerve fibres themselves were intact. M. Charcot observed in such instances that the nerve cells of the anterior horn of the spinal cord corresponding to the muscles were atrophied. This atrophy appeared to be the consequence of the propagation to the anterior horns of the inflammatory processes in the pyramidal tracts. Brissaud and others have frequently confirmed this view. M. Babiniski has put on record the following interesting instance in which the rule appears to be broken:—A woman, aged seventy, was attacked with complete right hemiplegia without hemianæsthesia; there were marked contracture and wasting, the wasting being most marked in the thenar and hypo-thenar eminences. The patient died eight months after the onset of palsy, having been all the time confined to bed. At the necropsy an area of softening was found in the left centrum ovale. There was crossed and direct descending degeneration in the spinal cord. The anterior horns, nerve roots, and nerve trunks were found to be perfectly free from any histological alterations. The muscles were much atrophied; their nuclei increased in number; the connective tissue proliferated and infiltrated with adipose tissue. The nerves and muscles of both sides were examined, so as to afford a perfect contrast. It is suggested that the process of descending degeneration in the spinal cord led to dynamic functional changes in the anterior horns and nerve fibres, and so caused the muscular atrophy without themselves undergoing the characteristic changes. Certain cases of disease of the spinal cord support this view. The case should be borne in mind in future investigations on the same subject.

THE SANITARY STATE OF NEWHAVEN.

WE are glad to find that the sanitary state of Newhaven, on which we were obliged some time since to comment adversely, is about to be dealt with by the sanitary authority, who after advertising for plans, and offering a premium for the best one, have decided to carry out an entirely new system of sewerage, according to a scheme prepared by Mr. W. H. Radford, M.Inst.C.E., of Nottingham. The scheme includes the retention of such of the existing sewers as are in good condition, the remainder being used for surface water only, and the construction elsewhere of Hassall's patent pipe-sewers, the whole system to be provided with adequate means of flushing and ventilation. The sewage from the town on the west of the river Ouse will be conveyed by a main outfall to a point away from the town, and near the mouth of the river, where it will be impounded in a concrete storage-tank during high water, the sewage being then run into the mouth of the tidal river at half ebb, so as to take advantage of a powerful current seawards. On the east of the river the present sewers and outfall at the mouth of the river will be utilised, but to prevent any backing of sewage a storage-tank, with means of flushing and ventilation, will be provided. Ultimately this outfall sewer will be connected with the previous one by means of a syphon under the river. By these several means, the impounding of sewage in the town or near habitations will be obviated, and the prevention of the passage of sewer air from the main culverts near dwellings, will be attained, and the coarse detritus will be removed from the storage-tanks before the contents enter the sea. An alternative outfall scheme, involving the construction under the chalk cliffs of a tunnel and of a well-ventilated storage-tank, has also been put forward, but whichever plan be finally adopted, the local authority feel confident that they will secure a permanent improvement in the sanitary state of the town.

PROPOSED MODIFICATION OF PIROGOFF'S OPERATION.

AT the recent congress of Russian practitioners, Professor Tauber described and demonstrated on the dead subject an operation for removal of the foot, which he believes has several advantages over Pirogoff's amputation. Standing on the outer side of the limb, he commences an incision at the insertion of the tendo Achillis, and carries it forward just below the external malleolus to the dorsum of the foot, and then vertically downwards on the inner side in front of the heel. When the middle line of the sole is reached, the incision is carried along it backwards and prolonged upwards to the starting-point at the insertion of the tendo Achillis, a flap having thus been cut consisting of the inner side and half the sole of the heel. The joint is then opened, the external ligaments being first divided and then the internal. The astragalus is seized with the bone forceps and removed, and the anterior part of the foot cut off by Chopart's line, nothing being left but the os calcis, the soft coverings of which on the inner aspect are untouched. The os calcis is seized with the bone forceps and turned so that the articular surface is towards the operator. The forceps are now taken by an assistant, who holds them tightly; the operator then saws the bone longitudinally in two; the outer half, which is free, is removed, the inner half remaining attached to the flap. The ends of the tibia and fibula are then sawn off just above the malleoli. The cut surfaces of these will be found to correspond almost exactly with that of the os calcis, which is now brought into apposition with them. The advantages claimed for this operation are: 1. The posterior tibial artery itself is untouched, only its branches being divided. 2. The insertion of the tendo Achillis, as well as its bursa, are not injured. 3. The surfaces of the os calcis and of the leg bones correspond very nearly to one another.

THE DRINK BILL FOR 1885.

IT is gratifying to know that in spite of the lamentable death of the late Mr. Hoyle we shall be favoured annually with an account of the expenditure of the United Kingdom on drink in the form of a letter to *The Times* by Dr. Dawson Burns. The great fact is a reduction in the expenditure on every kind of intoxicating liquor in 1885 as compared with 1884; on home-made spirits of £1,385,239; on foreign and colonial spirits of £180,744; and on wine of £204,190—a total reduction of no less than £3,080,496, or about 2½ per cent. Dr. Burns does not deny that this diminution is due rather to the depression of trade than to the growth of thrift and temperance. It is the best fact we know of in connexion with the depression of trade. The expenditure is still enormous and discreditable. Every man and woman should feel a personal responsibility to help to reduce it. Such an amount of alcohol can only mean great injury to liver and kidneys, bloodvessels and lungs. Medical men have a special responsibility, which we would venture to impress upon them. They are often blamed for recommending alcohol. They cannot always dispense with it, but they should think of the responsibility of the prescription.

THE MANCHESTER AND SALFORD SANITARY ASSOCIATION.

THE Manchester and Salford Sanitary Association show, by the fact that they issue a thirty-third annual report, how many years they have been labouring in the interests of public health in their district. They began their work before sanitary administrations for towns had been properly organised, and they must be regarded as pioneers in the promotion of public health work. But they still find work to do, and they continue to promote everything that may assist in the progress of sanitary science. In the face of the prospect of cholera the Association last year called together a conference, and a strong executive committee was appointed to formulate an effective scheme for combined action between the sanitary authorities, Poor-law guardians, representatives of hospitals, and others interested in the protection of the public from imported infection. A leaflet was also issued for distribution in case of the advent of cholera; and it is impossible to over-estimate the value of such an organisation, with its skilled helpers labouring in concert with the sanitary authorities in the face of any such emergency as a cholera prevalence in the vicinity of such great cities as those in question. During the year the Manchester building bye-laws received the attention of a committee of the Association, and the corporation were in the end advised to take a step which has been very widely adopted by other similar bodies—namely, to consolidate and amend their code of building bye-laws. The Association also sought to suggest a modified standard of purity under the Rivers Pollution Act, and they addressed the Local Government Board in favour of making the inspectorship under that Act an entirely separate appointment. In some respects the Association finds that duties which it originally undertook and carried out with great advantage to the public no longer call for their intervention. Thus, in the face of the staff of inspectors now acting under the health departments of Manchester and Salford, it has been thought desirable to discontinue the work of house inspection. The Association have largely aided in promoting an advanced state of public knowledge in such matters as overcrowding, house-drainage, &c., and they may now well leave the duty in question to those officials who, in addition to advising, have special facilities for enforcing the needed improvements. But no curtailing of action originally undertaken by the Association prevents them from still finding ample work; and the list of lectures already given, of duties carried out during the past year, together with the programme laid down for the attention of the members during the current year, go to show how many gaps there are in the existing organisations of public bodies which such a voluntary Association as this one can occupy with great credit to itself, and with advantage to the moral and physical welfare of the community amongst which it labours.

THE HEALTH OF RUSSIA.

IN consequence of an urgent recommendation of the Society of Russian Physicians, a special Medical Commission under the presidency of Professor Botin, was some short time since appointed by the Minister of the Interior to consider the subject of sanitary reform throughout the Russian Empire. The report of this Commission has recently been issued, and it is announced that some general measures for improving the public health are indispensable in view of the excessive mortality, which is higher than that of any other country in Europe. The creation of a central administration of medical control over the public health, in which all the sanitary questions of the Empire are to be considered, is strongly advised. With reference to the paucity of medical men, it is stated that for a population of over 90,000,000 there are only 5200 medical men—1600 under the Minister of the Interior, 1000 engaged by the zemstov, and 2600 in private practice. No greater proof, perhaps, of the unhealthiness of St. Petersburg could be given than the fact that during the month of January last no fewer than 2704 persons died (1536 males and 1168 females), while the births for the same period amounted to 1314 boys and 1286 girls only—2600 altogether—or 104 less than the deaths. Such a rate of mortality as this fully justifies the increasing concern felt in Russia as to the necessity for sanitary reform, not only in the capital, but throughout the country.

SIR WILLIAM TURNER.

No more fitting honour has been bestowed on the profession of medicine of late than the knighthood of Sir William Turner, the worthy successor of the immortal Goodsir. The compliment can be justified by reference either to Sir William's contributions to the science of anatomy or to his services to the famous University of which he is a distinguished professor and ornament. There are few present members of the Senatus to whom the University of Edinburgh owes so much as to Professor Turner. We have not always agreed with Professor Turner in his views of the true interests of the Scottish Universities and of the best way to advance them. We have seriously differed from him. But this does not hinder us from offering him our heartiest congratulations, and wishing him a long continuance of the happiness which he enjoys in the success of his own labours, and in the fame of the University which he has done so much to promote.

PERIPHERAL NEURITIS IN TUBERCULOSIS.

THAT many neuro-muscular affections of obscure origin, but hitherto suspected without proof to be due to central lesions, are unquestionably dependent upon affections of the nerve-trunks themselves, has now been well established by the accumulated facts concerning peripheral and multiple neuritis. The same lines of inquiry are leading to the overthrow of many a case attributed to "functional" derangement. This has never been better illustrated than in a paper by Drs. Pitres and Vallard, to be found in the current number of the *Revue de Médecine*. Their subject is the nerve derangements which complicate the course of tuberculosis. Apart from obvious extension of the tubercular inflammation to the brain and spinal cord, there are numerous instances, especially among the phthisical, of hyperæsthesia and of anæsthesia, of neuralgiæ of various regions, of localised muscular atrophy, of vaso-motor disturbances, which have hitherto received no satisfactory explanation, or rather, we might say, which have not been sufficiently studied. The authors named have examined the peripheral nerves in several cases of phthisis so complicated, and have found undoubted evidence of parenchymatous neuritis. In some cases, indeed, the lesions and symptoms are so widespread and severe as to closely resemble the multiple neuritis due to alcoholic poisoning; and it is not always possible to exclude this etiological factor from the case. The conclusions at which MM. Pitres and Vallard arrive are stated as follows: 1. In the course of tuberculosis, as in that of other infective diseases, it is not rare for the peripheral nerves to become the seat of parenchymatous changes having the characters of so-called degenerative neuritis. 2. These forms of neuritis are local, and do not depend upon pre-existing lesion of the brain or cord. They are to be met with in subjects whose nerve centres (brain, cord, meninges) and spinal nerve roots are perfectly intact. 3. They may attack indifferently the sensory, motor, or mixed nerves; and may similarly involve the cranial nerves (optic, oculo-motor), the pneumogastric, the

phrenic, &c. 4. Their very complex and variable symptomatology is as yet but incompletely known. It is, however, possible to divide them into three groups. The first comprises cases where the neuritis discovered post mortem has been unsuspected during life owing to the serious symptoms due to the development of the tuberculosis (latent neuritis). The second comprises cases in which localised or diffuse muscular atrophy constitutes the predominant symptom (amyotrophic neuritis). The third includes cases in which sensory disorders are produced, as hyperæsthesia, anæsthesia, neuralgia, &c. (painful or anæsthetic neuritis). 5. The frequency of peripheral neuritis in the tuberculous, the variability of its distribution, and consequently of its symptomatology, explain the occurrence and clinical polymorphism of the nervous derangements which arise in the course of tuberculosis.

IN MEMORIAM: DR. AUSTIN FLINT.

WE have been favoured with a copy of the memorial circular in which the Executive Committee of the New York Medical Association express their feelings in regard to the character and death of Dr. Austin Flint. The words are so appropriate, and so well accord with our own views, that we venture to quote some of them, which, we are sure, will be appreciated in this country, where Dr. Flint's genial and lofty presence had of late become as familiar as it was welcome:—

"Professor Flint, from early manhood, has ever been an indefatigable laborer in the field of medical science, and for half a century has been one of the most accomplished teachers and writers in the profession. His varied experience, extending over different portions of our country, enabled him, on his settling in New York City, at once to take the foremost place in the profession. As a consultant he was without a peer; his calm judgment, urbane manners, and strict conscientiousness made his presence ever welcome to his brethren. As a gentleman he will be held in grateful remembrance by all with whom he came in contact. His charities were proverbial. His death will be the cause of universal sorrow, especially occurring at a time when his deliberate counsels are most needed. We can never forget that genial countenance, those cheerful words, and that buoyant disposition, which, amid the greatest of sorrows, always pointed out the ray of light affording hope."

QUARANTINE FOR THE TONKIN TROOPS.

THE French Government have evidently given way to the clamour raised by the inhabitants of Toulon against the landing of troops from Tonkin in that port, and, having regard to the sanitary state of the town, we are not surprised at the fears which have been expressed. Some steps being necessary, Dr. Proust, the inspector-general of the sanitary services, and a staunch supporter of "quarantine" detentions under the disguised name of "observation," has matured a scheme which gives promise of securing all such efficiency as can be expected. According to the *Journal Officiel de la République Française*, the two islands of Port Cros and Bagau are to serve for the purpose. The former island is one of the most westward of the Hyères group, and thereon it is proposed to intern the passengers and crew of all non-suspect vessels arriving from Tonkin for a period of six days; all patients suffering from non-infectious diseases to be kept there in proper accommodation until they have recovered. The island of Bagau is much smaller than Port Cros, immediately to the east of which it lies. Bagau is to be reserved for so-called infected vessels, this term including those on which any case of cholera has arisen, the passengers and crew being disembarked, and the vessel and other articles being disinfected. So also, any infectious case arising in Port Cros is to be removed to Bagau. But, apart from this, there is to be no communication between the two islands, which are to have altogether separate and independent administrations. It will be interesting to observe the effect of these detentions as soon as they can be organised; the more so, as the quarantine measures heretofore adopted have certainly failed to protect France from the importation of cholera by means of troops returning from the East.

LACERATION OF THE CERVIX AND ITS SYMPTOMS.

OUR gynæcological friends would command greater respect for their specialty if they would give out a little more certain sound as to uterine lesions and their significance. Every lesion seems to be in fashion for a time, and then be found out to be more or less unsubstantial, when it gives place to another. One time ulcers of the cervix were the explanation of all ills that women are heir to. These were next referred to "displacements," which in their turn gave way to ovarian and tubal inflammations, which now seem threatened by lacerations of the cervix, generally produced by long or instrumental deliveries. Dr. Charles Meigs Wilson, in an interesting paper before the Obstetrical Society of Philadelphia, attaches great importance to this lesion as a cause of unique symptoms, pelvic distress and often severe reflex nervous symptoms mounting up to insanity itself. Neglected cases of laceration often end in subinvolution, with subsequent prolapsus, hyperæmia, hypergenesis of tissue, and ectropion of the cervical mucous membrane. One patient suffering from such symptoms had them all attributed to floating kidney, and was recommended to have it extirpated. She was quite cured by having the contour of the cervix restored. Another had ulcer of the rectum with painful defecation and ribbon stools, backache, and slight vaginal discharge. She was suspected of cancer of the rectum. Specular examination of the vagina showed extensive bilateral laceration with acute retroflexion. The restoration of the contour of the cervix and simple astringent application to the rectal ulcer completed the recovery. In a third case pyosalpinx was diagnosed and oöphorectomy recommended. Extensive laceration was found, the cure of which was followed by complete cessation of all the symptoms. This patient had suicidal dementia and sometimes required restraint. Another patient was in an asylum for fourteen months. Distressing pelvic pain and profuse leucorrhœa led to the discovery of extensive laceration of the cervix, and two months after to complete recovery, which continues after twelve months. The author did not dwell on the operative treatment, but in the discussion great importance was attached to the complete removal of hard cicatricial tissue and perfect union of the coapted edges. In all cases rest and milder measures should first be tried.

BUISSON'S TREATMENT OF HYDROPHOBIA.

CENTRES have been established in various parts of London and in a few provincial towns for carrying out M. Buisson's treatment of hydrophobia. The wound is washed with a solution of ammonia; the patient has a daily vapour bath at a temperature of 42° to 48° Réaumur, with a view to producing profuse perspiration for seven consecutive days, and draughts of a hot infusion of borage, also with a view to promoting the diaphoresis. We gave a brief account of this treatment in THE LANCET of Aug. 23rd, 1884. Dr. Buisson is said to have cured himself after the development of the symptoms of hydrophobia. He and his disciples regard the method as an infallible preventive of hydrophobia, and as an equally certain cure, if begun on the first day of the developing disease; on the second day its effect is less certain, and later it has no effect in staying the course of the malady. As to the merits of the treatment we can assert nothing. It

is alleged to have prevented or to have cured the disease a hundred times. But the sources of fallacy are innumerable. We do not yet know the proportion of individuals bitten by a mad dog who become the subjects of hydrophobia. It is difficult to conceive that profound sweating can stay the course of a disease which seems to be due to the development of a living germ in the medulla oblongata. That washing a recent wound with liquid ammonia and making the individual perspire profusely should be able to prevent the disease can be reasonably conceived.

THE COMMONS MUST GO TO BED EARLIER.

IF the House of Commons cannot be induced to adopt the early-closing movement for itself by fair means, it is high time that publicly and personally most desirable reform should be effected, even though it be by means most foul. We are therefore glad to see that Mr. Blake, M.P., has written to a contemporary proposing that at twelve o'clock every night some hon. member shall rise in his place to move that any debate then in progress may be adjourned, and if this be carried that the division shall be immediately followed by a motion to adjourn the House. Mr. Blake is of opinion that a sufficiently large party to carry out this organised obstruction in the interests of health could readily be formed. We trust he is right. It would, of course, be better if the House of Commons could be placed on the footing of a public-house and compelled to close its doors at midnight. How gladly would the over-worked officials receive a standing order to lower the gas at a quarter to twelve, and to turn it off completely when Big Ben struck the last unit of the midnight hour! Let us hope Mr. Blake's revolt will succeed. The healths of our representatives and the value of their achievements alike point urgently to the need of this beneficent reform.

THE RIVER LEA.

THE Select Committee of the House of Commons appointed to inquire into the pollution of the river Lea has commenced its work, and has received the evidence of Mr. George Corble, the clerk to the Lea Conservancy Board, who gave an account of the Acts of Parliament relating to the rivers Lea and Stort. The Conservancy Board have, it appears, a prior right under the Act of 1855 to the use of the water, but they had not exercised this right to the full because they had been unwilling to interfere with the water companies who were dependent upon this source for their supplies. Mr. Corble believed the condition of the river, which last year was the subject of serious complaint, was due to the Tottenham effluent; and while he admitted that if the Conservancy Board had fully exercised their rights this condition would have been better, he did not know what the East of London would have done had the East London Water Company been deprived of its water.

LIGATURE OF THE INNOMINATE ARTERY.

MR. BENNETT MAY ligatured the innominate artery, under the spray, for a large subclavian aneurysm, at the Queen's Hospital, Birmingham, last Saturday morning. The patient, aged thirty-three, is a labourer in a large brewery, and has been accustomed to lift heavy weights on to his right shoulder. This joint has been three times dislocated, and symptoms of the arterial mischief first appeared eighteen months ago. Since the operation the patient's constitutional state has been most satisfactory. The temperature only rose slightly above normal on the fourth day. In tying the vessel Mr. May used a cord made up of six strands of carbolised catgut, and employed sufficient force to arrest all pulsation in the tumour, without, however, severing the coats of the vessel, which was much dilated. No pulsation could be felt at the right wrist when the patient left the operating theatre, but it reappeared slightly the same evening, and has since continued.

THE LATE DR. GEORG VARRENTRAPP OF FRANKFORT.

DR. GEORG VARRENTRAPP, who died at Frankfort-on-the Main on March 15th, at the age of seventy-seven, was one of those who have been most successful in drawing the attention of the public to the necessity of sanitary measures. He rendered great service to school hygiene both by his writings and as a member of the governing body; but his chief work was the carrying out of an improved system of drainage in his native town of Frankfort. He was the first to found a sanitary journal in Germany, and the eighteenth volume of this periodical is now in course of publication. His student days were passed at Würzburg, where he graduated in 1831, since which time he lived and practised in Frankfort, where he held the appointment of physician to the Hospital of the Holy Ghost.

WELL DONE SUNDERLAND, NORWICH, AND HUDDERSFIELD!

A HIGHLY creditable fact in vital statistics will have been noticed in an abstract of the Registrar-General's reports last week—viz., that in Sunderland, Norwich, and Huddersfield there was not recorded one death from any of the principal zymotic diseases—whooping-cough, measles, diarrhœa (interesting to notice diarrhœal deaths even in such a cold March as we have had), scarlet fever, fever, diphtheria, and small-pox. These towns have a population respectively of 116,542, 87,842, and 81,841—in all of 286,225. Sunderland, at least, has severely felt the incidence of the commercial depression. The low zymotic mortality which we emphasise is only the more creditable to the municipal and medical authorities of these towns, and enlarges our views of the possible results of sanitation and of medicine in reducing the mortality of communities.

TYPHUS IN MOSCOW.

SPOTTED TYPHUS was so prevalent in Moscow last month that, according to the *Russkaya Meditsina*, in spite of 150 temporary additional beds in the hospitals, patients had to be refused admittance for want of room; and the latest Moscow journals say that, this state of things continuing, it has been arranged to send all patients with chronic and incurable diseases out of the hospitals in the town. In this way some 500 beds will be available for typhus cases. The patients sent out will be provided for elsewhere. It is also stated that even in the Government prisons the disease is raging pretty severely.

THE IDIOTS BILL.

THE framers of this measure should at once determine, not only in their own minds but by an intelligible definition of the term "idiots," what class of persons they intend to deal with. As the Bill is drawn it is a highly unsatisfactory measure, affording opportunities for dealing with persons of feeble mind with only one certificate instead of two, and with the least possible protection. It will be a scandal if this measure passes with no more attempt to distinguish between two classes extremely easily confounded than the absurd intimations that "'idiots' or 'imbeciles' do not include lunatics," or "'lunatic' does not mean or include idiot or imbecile." The definition is not one whit more intelligible as a means of analysis than the famous synthetical formula, "Cæsar and Pompey are alike, especially Pompey."

DR. TEJADA Y ESPANA.

THE death is announced of Dr. Tejada y España, editor of *El Genio Médico*, one of the weekly medical journals published in Madrid. He began his career as a "third-class surgeon" in the province of Burgos, and there became editor and proprietor of the *Eco de los Cirujanos*. He afterwards went to Madrid and took the degree of Licentiate in Medicine, which was succeeded by that of Doctor. Of two older medical journals which he edited he founded the *Genio*, which is now in its thirty-second year. He wrote also a Compendium of Surgery and a well-known novel, "*El Coche del Médico*" ("The Doctor's Carriage"). He was an honorary member of a considerable number of foreign scientific societies.

FOREIGN MEDICAL APPOINTMENTS.

PROFESSOR F. A. HOFFMANN of Dorpat has been appointed to the charge of the Leipsig Policlinic, vacated by Professor Strümpel, who has gone to Erlangen; Professor Dr. Richard Wiedermann, the physicist, succeeds Professor Dorns. Professor Lommel of Erlangen has been appointed to the Chair of Experimental Physics at Munich. Dr. Otto Haab, assistant in the Ophthalmic Clinic, has been appointed to the Professorship of Ophthalmology at Zürich, vacated by Professor Horner. M. Wasseige, a professor in the Medical Faculty of the University of Liege, has been appointed Rector, and received quite an ovation from the medical students and from his colleagues. He was at the same time raised to the dignity of Officer of the Order of Leopold.

A LARGE FEE AND A MUNIFICENT DONATION.

WE understand that the sum of £5000 has been entrusted to Sir Andrew Clark by a lady as a donation to medical charities. This sum he has distributed as follows:—£2000 to the London Hospital; £1000 to the Medical College attached to that hospital; and £2000 to the Royal Medical Benevolent College. The presentation was preceded by the payment of a fee of £1500 to Sir Andrew in consideration of his absence from town for five days on a professional visit to this lady in the South of France.

THE PASTEUR TREATMENT OF HYDROPHOBIA.

THE Academia Medica di Roma on Sunday, March 28th, Professor Guido Baccelli presiding, held an animated discussion on M. Pasteur's method in hydrophobia. Opinion as to its efficacy was much divided, and the discussion was adjourned till April 4th, when a decision will be come to, and a report prepared for publication in the Academy's official organ, the *Bollettino*.

FROM the report of the examination made by Colonel Sir Francis Bolton of the water supplied by the several metropolitan water companies during the month of February, it appears that the Thames water sent out by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies contained in every case less organic matter than was present in the January samples, and in none of the samples was the organic matter excessive for this season of the year. Of the water drawn from the Lea, that supplied by the New River Company contained less, and that by the East London Company more, organic matter than any of the other river waters. All the samples were clear and bright on delivery.

THE Senate of the University of Edinburgh has offered the honorary degree of LL.D. to Deputy Inspector-General F. J. Mouat, M.D., F.R.G.S., &c.

IN the *Vierteljahresschrift für Dermatologie und Syphilis* Professor J. Caspary, of Konigsberg, figures one of two children, aged respectively four years and a year and a half, affected with ichthyosis fœtalis. They were the children of cousins, and were prematurely born. There seems to be no doubt that the affection was congenital; but the state of the skin did not quite correspond to that in the harlequin fœtus lately shown, brought by Mr. Sutton to the Royal Medica and Chirurgical Society. There were, however, flexion of the limbs and genu valgum. Professor Caspary gives some interesting references to other cases, entirely, however, from German literature, and discusses the relation of the condition observed with that of the so-called harlequin fœtus.

THE *Presse Médicale Belge* announces that the Council of Administration of the University of Brussels has actually ratified "the deplorable decision" of the Faculty of Medicine, which has the effect of depriving Professor Crocq of his chair of clinical medicine and of his examinership in the practical part of the examination for the M.D. degree.

THE Government of Spain have information to the effect that suspicious cases of illness have occurred in the mining district of Bilbao, and that two cases have been pronounced to be cholera. A later account contains the usual denial, but it will be recollected that the disease prevailed in this locality late during the course of last autumn.

THE Archduke Charles Theodore of Bavaria, who practises medicine, has obtained permission from M. Pasteur to be present at the inoculations in the laboratory of Rue d'Ulm. The Archduchess, who helps her husband in his professional labours, will accompany him as an assistant.

THE Gresham Lectures will be delivered by Dr. Symes Thompson on April 6th and three following days, the subject being the "Diseases of Infancy and Childhood."

SCHROEDER'S Treatise on Diseases of the Female Genital Organs has just been translated into French by two Belgian physicians, MM. E. Lauwers and Hertoghe.

Pharmacology and Therapeutics.

IMPROVED GELATINE LAMELS.

THESE lamels are prepared by Mr. Brownen and are designed to meet the requirements of modern surgery and medicine. It is asserted that the lamels or discs are prepared with the purest gelatine and are so manufactured as to be free from every impurity, including fungi and germs. Three of the lamels are now official in the British Pharmacopœia of 1885—atropine, physostigmine, and cocaine. The lamels are made for use in ophthalmic surgery, as well as for hypodermic medication. The specimens that we have submitted to trial have answered their purpose admirably. The articles may be procured of Mr. Martindale, 10, New Cavendish-street, W.

PHYSIOLOGICAL AND CLINICAL BEHAVIOUR OF ANTYPYRIN AND THALLIN.

Our knowledge of the action of the new antipyretics is receiving constant, we may almost say weekly, additions. One of the latest researches on these drugs is by Dr. Anseroff, and is reported in the *Russian Medical Review* for last month. The particular point to which he directed his investigations, which were conducted both in the laboratory and in the wards, was the effects of antipyrin and thallin on the vaso-motor apparatus both in the normal state and in fever cases. He employed for some of his experiments

animals which were sufficiently under control not to require tying-up, which of itself must exert some influence prejudicial to the results. He found that antipyrin caused an increase of blood-pressure and a decrease of the internal temperature, as shown by a thermometer in the rectum; but a considerable rise, sometimes as much as 12°C., in the external temperature, that of the paw being generally taken. This rise of the temperature of the paw, however, did not occur where the limb had been previously paralysed by division of the sciatic nerve, showing that the antipyrin acted as a stimulant to the vaso-dilator nerves through the vascular centre, the vaso-constrictors of the interior being stimulated so that the tension remained above the normal. Similar results were given by experiments with thallin. With regard to the rise of temperature which sometimes occurs after the exhibition of considerable doses, Dr. Anseroff suggests that increased loss of heat may induce augmented heat formation. The rise observed after thallin may be explained by the exhaustion of the apparatus which regulates the loss of heat. Clinical observations on fever patients present an analogous result—viz., a lowering of the internal temperature going on side by side with an increase of the external temperature. Clinically, the following points concerning the two drugs should be borne in mind. 1. With thallin the temperature begins to rise again two hours after the dose. 2. Very frequently a single four-grain dose of thallin produces a rigor with a subsequent rise of temperature, sometimes above that which existed before the medicine was taken. 3. With respect to equal doses of the two drugs, thallin causes a more decided reduction of temperature, but is much more likely to produce a rigor with a subsequent rise. Antipyrin behaves, in the author's opinion, like hydro-therapeutic measures in improving the breathing, pulse, general feeling, and appearance of the patients.

PIPER METHYSTICUM (KAVA-KAVA).

A substance, the active principle of kawa, appears to possess more qualifications as a substitute for cocaine than either menthol or apomorphine, if we may speak thus from purely experimental researches, the results of which M. Lewin of Berlin has recently collected in a *brochure* published by A. Hirschwald. The plant is already known to the medical world under the name of kava-kava; the root has been used by the inhabitants of the Polynesian isles in the preparation of an intoxicating liquor which is their alcohol; it is also employed to check discharges from the urethra and other parts. Two crystallisable substances, kawahin and yankonin, have been separated from the root by Nölting and Kopp. By agitating the root with petroleum ether M. Lewin has extracted two resinous bodies: one (*a*) of these has a greenish-yellow tint and the odour of the plant; the other (*b*) has a reddish-brown colour. A minute particle of the two resins, or of the first, placed on the tongue causes a sensation of burning, which is followed by a certain degree of anæsthesia of the part touched. The anæsthetic effect is said to be well marked on the conjunctiva, and may be prolonged for hours in guinea-pigs by renewing the fragment of resin from time to time; the eyes underwent no pathological alteration, only a slight dilatation of the palpebral fissure. The introduction of minute quantities of the resin (*a*) under the skin of frogs produces marked loss of sensibility, so that the animal takes no notice of severe irritation of the affected part; ligature of the vessels of the limb experimented on made no difference in the result; the local anæsthesia continued to be local. Introduced into the subcutaneous tissue of rabbits the anæsthesia developed without any sign of inflammation. Kawa resin appears to exert a paralysing influence when administered in larger doses, and its effect in this regard is thought to be due to its action on the motor cells of the anterior horn of the spinal cord. Its first action is believed to be on the terminations of the sensory nerves. M. Lewin suggests that it also destroys the conductivity of fibres, conveying painful impressions in the grey matter of the cord; and he also thinks it acts on the brain, causing sleep.

COCAINE.

A case has been recorded by Dr. Schilling in the *Pharmaceutical Journal* in which the injection of six drops of a 20 per cent. solution of cocaine into the gums of a woman aged twenty-eight, to prevent the pain of extraction of a molar tooth, was followed after the extraction by symptoms of which unconsciousness and rigid aspect of the face were the chief. There was contraction of the retinal arteries, as witnessed by the ophthalmoscope. The inhalation of three drops of amyl nitrite restored the patient to consciousness, and it was considered probable that the brain was in the same anæmic state as the retina. Dr. Bignon says that cocaine, if it be pure, should be white, almost inodorous, entirely soluble in three parts of alcohol, two parts of sulphuric ether, in chloroform, in sulphide of carbon, and in twenty parts of tarzine, prepared either from tar or petroleum. According to him, also, the benzoate of cocaine is more stable than the hydrochlorate, and is preferable in other ways. Grunhagen and Berthold have ascertained that injections of cocaine in moderate doses increase the blood-pressure, and they believe that this result is to be attributed to an excitation of the vaso-motor centre, since it does not occur after section of the cervical swelling of the spinal cord. In larger doses a fall in blood-pressure takes place, due to paralysis of the vaso-motor centre; in a curarised rabbit whose vagi were cut in the neck after having received a large dose of cocaine, with consequent lowering of the blood-pressure, stimulation of the saphenous nerve caused no augmentation of blood-pressure until the effect of the cocaine had passed off.

HOMERIANA.

A plant called Homeriana (Palygonum aviculare), which is very common in Russia, and is used popularly as a drug, has been examined by Dr. Rotschinin and reported on in a paper read to the recent congress of Russian doctors. It has been found by Werner to contain a large proportion of alkaloid. A decoction, however, was used by Dr. Rotschinin, a tumblerful being given three times a day. It appeared to be really valuable in several cases of bronchitis, two of which were capillary; also in three cases of whooping-cough. It was tried in phthisis but no definitely satisfactory results were obtained.

GRINDELIA ROBUSTA.

The action of grindelia robusta has been investigated by L. Grinivetski, his paper on the subject being published in the *Russkaya Meditsina*. He found the liquid extract very useful in emphysematous asthma due to chronic bronchial catarrh, the asthma diminishing after a few doses, and the cough and expectoration likewise becoming less. His prescription was—"℞ Inf. rad. senegæ, ʒvi.; ext. grindel. robust., ʒij. to ʒiij.; syrup. glycyrrhizæ, ʒss. A dessertspoonful every two hours till relief is obtained." It was found that the drug was useless in asthma due to other causes.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Reading Urban District.—The death-rate for this borough during 1885 was 18·0 per 1000, and the zymotic rate 2·6. The inhabitants number somewhat over 42,000, and the population per acre amounts to 22·4. Amongst the deaths from infectious diseases there were 58 from measles, and 22 from whooping-cough. In short, a large number were beyond the present range of sanitary measures. But there were 19 deaths from scarlet fever; and in the absence of a proper hospital for the reception of such cases, it appears that in two instances only was removal effected to the small cottage at present available for isolation purposes. Diphtheria is known to have occurred in 21 cases, and 9 of the attacks proved fatal. Diarrhœa was, fortunately, almost entirely absent as a fatal disease. Sanitary work is steadily progressing; the houses still needing it are continuously being connected with the new system of public sewers, fresh bye-laws have just been finally dealt with, and the imperfect system of hand flushing to waterclosets has been replaced by cistern flushing in 236 cases. But in 24 instances there is direct communication between the closet pans and the water mains, and, knowing the extreme danger of this arrangement, Dr. Shea presses for the abolition of all such connexions.

Kettering Urban District.—Mr. Dryland reports the condition of this district as remaining satisfactory, there having been no epidemic, the general death-rate standing at 15 per 1000, and the infant mortality having diminished. The

attention heretofore devoted to the perfecting of house, drain arrangements continues, and alterations are insisted on whenever nuisance or injury to health enables the authority to act. The old infectious hospital being dilapidated, a new permanent hospital is now about to be erected outside the town, and the new sewerage works are completed. Altogether this urban district has, for some years past, shown signs of steady sanitary progress.

Wellington Urban District.—Dr. Meredith reports that, notwithstanding a somewhat fatal epidemic prevalence of measles, the death-rate for 1885 amounted to only 15 per 1000. A scarlatina prevalence, which fortunately was of a mild type, became a good deal diffused amongst children attending the various schools; and under these circumstances it was found necessary to exclude children in affected houses from school attendance. As to this prohibition under the Education Code, the report points out how difficult it is to prevent children from mingling at play. This is true; and the medical officer of health who avails himself of this system of exclusion from school of children from special districts or houses, instead of resorting to the alternative of closing the school altogether, will always necessarily have to judge whether, under the local circumstances, he will best gain his end, of securing the utmost practicable isolation, by the one or the other process.

Doncaster, Goole, &c., Combined District.—In preparing his annual report on this combined district, Dr. Mitchell Wilson takes occasion of the issue of the Registrar-General's decennial report to make comparison for the past ten years between the districts in his combination and England and Wales as a whole; and these go to show a marked and progressive diminution in mortality, which may, in large part, be properly attributed to the sanitary work which has been carried out. In the *Doncaster Rural District* the death-rate for 1885 was 16 per 1000. Amongst the infectious diseases which prevailed were diphtheria, small-pox, and enteric fever, which led to sanitary improvements being effected; but it is evident that in certain localities the need for an improved water-supply still calls for remedy. Some important work has, however, been accomplished, such as the sewerage works for Balby-with-Hexthorpe; and the list of minor duties performed go to show that a good deal of beneficial work is steadily in progress. In the *Goole Rural District* there was a low mortality of 15·3 per 1000 and an absence of any serious outbreak of infectious disease. In the marshland districts the question of water-supply is one of considerable difficulty, for those supplies which are immediately procurable are brackish and unwholesome, and the expense of providing any other supply than that of rain from roofs would be very costly for such a district. Considerable attention is being given to the subject, but for various reasons no solution has yet been arrived at. In the *Selby Rural District* the death-rate of 18·4 per 1000 exceeded the average rate for the previous five years, but the zymotic rate of 1·3 was not heavy. Small-pox caused some mortality, and enteric fever was locally spread by impure water and defective drainage. Referring to sanitary work, Dr. Wilson reminds his authority that its value is not necessarily to be judged by the cost, and that much of the comparatively costless work which is continuously being done in the district forms a very important part of the sanitary administration carried out. A large improvement has been effected in connexion with the water-supply, and eighty new wells have been sunk during the past five years. In the *Tadcaster Rural District* the annual death-rate was 18·2 per 1000, and the rate from the zymotic diseases was as high as 3·4 per 1000. Scarlet fever was prevalent in Kippax and at Garforth. Enteric fever began and spread at South Milford through the use of brook water, which receives sewage not only direct from drains, but also indirectly by soakage from foul ash-pits. But on the whole there has, during the past five years, been a satisfactory diminution in the prevalence of continued fever, and in this connexion it is to be noted that polluted water-supplies have been extensively dealt with. A proper system of drainage and water-supply are much wanted at Kippax, but at Garforth, Micklefield, and at Great Preston sanitary works of importance were carried out. The *Goole Urban District* exhibited a death-rate of 15 per 1000 only, and the cases of infectious diseases reported were comparatively few in number, the hospital being, however, utilised for cases of small-pox. Strict supervision was maintained during the year under the Canal Boats Act, but as regards the respective duties of Hull and Goole at the entrance of the river matters are not very satisfactorily arranged to meet any danger from imported cholera. The scavenging of ash-pits and tub-closets still remains to be efficiently dealt with, and so far as we can judge, the only proper solution of the difficulty would be for the local authorities to organise a staff of their own to do it. During the past ten years 128 patients have been admitted to the fever hospital, and considering that it is but a workhouse establishment transferred to the sanitary authority, this result is by no means unsatisfactory. The death-rate in the *Selby Urban District* amounted to 18·5 per 1000. Dr. Wilson devotes a good deal of attention to the need which exists in this district for some proper provision for the isolation of infectious fevers, and it is to be hoped that his arguments will not pass unheeded. Last year saw the completion of a new water-supply for Selby, as also new bye-laws for regulating streets and buildings. The slaughterhouses are well looked after, the common lodging-houses are regularly inspected, and sanitary work is continuously maintained.

Cranbrook Rural District.—Mr. Butterfield is able to point to a continued small mortality in this district. The mean rate for the ten years ending 1884 was 15·5 per 1000, and that for 1885 is 15·7; the zymotic rate is also low—namely, 1·2 per 1000. New sewers have been constructed, which have secured the efficient drainage of 140 houses, polluted wells have been closed, and a few cases of infectious disease have been dealt with by a system of trained nursing which aims at the utmost procurable isolation together with disinfection. But there is one drawback to this district. The state of Cranbrook is such that it is described as surrounded by its own sewage, and it is urged that when the water-supply is drawn from the proximity of cesspools a catastrophe must be expected sooner or later, and that bad times are no sufficient argument to justify the postponement of the necessary remedial works.

Lincoln Rural District.—Subject to corrections necessary for public institutions, the death-rate for 1885 was 15·5 per 1000. The only disease which prevailed with sufficient intensity to call for special notice was diphtheria, and a somewhat large outbreak beginning with, and being spread by, so-called cases of quinsy and sore-throat, took place during the year. It was associated with conditions which call for substantial action on the part of the authority, such as overcrowding, want of proper drainage, cesspools overflowing into ditches and a beck, and slops and heaps of refuse lying about. But it was not found practicable to exercise sufficient care in connexion with school attendance, and it would be well for Dr. Harrison, after securing the co-operation of the school officials, to enforce for some time to come a rigid exclusion of all scholars from houses where sore-throat of any sort prevails. It has in some districts been found most useful to organise a roll-call at the beginning of every day's school as to such affections in the houses from which children came, and then to get the authority to put in force the exclusion clause of the Education Code. Diphtheria has caused 46 deaths in this district during the last ten years, and in 1882 and 1884 the fatal attacks were eleven and ten respectively.

Spennymoor Urban District.—This coal and iron district, with some 6000 inhabitants, has never been distinguished for activity in its sanitary work, and this notwithstanding the fact that its defects have been pointed out by the local officer of health and special medical inspectors. In 1885 the death-rate was needlessly high for so small a population—viz., 20·3 per 1000. Dr. O'Hanlon reports that many causes of disease still exist in this district, and amongst these he enumerates the following: (1) The influx of pitmen and others from infected districts, seeking work; (2) the unhealthy conditions of middens and privies; (3) the excessive use of intoxicating liquors; (4) the chewing of tobacco, and the drinking of laudanum amongst the women; (5) the ill-feeding of children; (6) the great neglect of children; and (7) the gossiping amongst women during the prevalence of epidemic diseases. Unless Spennymoor has materially altered within the past few years, and there is no evidence of this, the sanitary circumstances by which the populations are surrounded, and under which young people live, are calculated, to a large extent, to give rise to demoralising influences, and to bring about the very conditions for which the place is said to be noted. If the sanitary authority would only try it, they would find that the educational effect of perfect cleanliness of thorough-

fares, yards, spaces about houses, and inside dwellings would probably do more than anything else towards removing those causes of death to which the medical officer of health refers.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6183 births and 4603 deaths were registered during the week ending March 27th. The annual death-rate in these towns, which had steadily increased in the eight preceding weeks from 22·1 to 29·3, declined again last week to 26·4. During the first twelve weeks of the past quarter the death-rate in these towns averaged 24·4 per 1000, and exceeded by 0·2 the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 18·3 in Hull, 19·6 in Sunderland, 20·2 in Newcastle-upon-Tyne, and 22·2 in Wolverhampton. The rates in the other towns ranged upwards to 30·9 in Preston, 31·0 in Manchester, 37·3 in Blackburn, and 40·2 in Plymouth. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 430 and 427 in the previous two weeks, further declined last week to 406; they included 164 from whooping-cough, 128 from measles, 32 from diarrhœa, 28 from "fever" (principally enteric), 28 from diphtheria, 22 from scarlet fever, and 4 from small-pox. No death from any of these zymotic diseases was recorded last week either in Derby or in Halifax; whereas they caused the highest death-rates in Bolton, Portsmouth, and Blackburn. Whooping-cough caused the greatest mortality in London, Leicester, and Portsmouth; measles in Birmingham, Nottingham, Portsmouth, Bolton, and Blackburn; and scarlet fever in Birkenhead. The 28 deaths from diphtheria in the twenty-eight towns included 18 in London, 2 in Liverpool, and 2 in Wolverhampton. Small-pox caused 2 deaths among the residents of London and its outer ring, 4 in Bristol, and not one in any of the twenty-six other large provincial towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 7 on each of the preceding three Saturdays, was 8 at the end of last week; 5 cases were admitted to these hospitals during the week, against 1 and 2 in the preceeding two weeks. The Highgate Small-pox Hospital contained 5 patients on Saturday last, 2 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had increased in the preceding nine weeks from 477 to 917, declined last week to 710, but exceeded the corrected weekly average by 202. The causes of 82, or 1·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Birmingham, Bristol, Preston, Plymouth, and Halifax; and the largest proportions of uncertified deaths were registered in Salford and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding five weeks from 22·3 to 27·9 per 1000, declined again to 24·7 in the week ending March 27th, and was 1·7 below the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 13·9 and 14·8 in Greenock and Leith, to 30·4 in Paisley and 30·5 in Glasgow. The 609 deaths in the eight towns showed a decline of 81 from the number in the previous week, and included 29 which were referred to whooping-cough, 11 to diarrhœa, 8 to measles, 8 to scarlet fever, 4 to "fever" (typhus, enteric, or simple), 1 to diphtheria, and 1 to small-pox; in all, 62 deaths resulted from these principal zymotic diseases, against 51 and 46 in the preceding two weeks. These 62 deaths were equal to an annual rate of 2·5 per 1000, which exceeded by 0·2 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 20 and 14 in the preceding two weeks, rose last week to 29, and included 27 which occurred in Glasgow. The 11 deaths attributed to diarrhœa corresponded with the number in each of the previous two weeks, and included 7 in Glasgow. The 8 deaths from measles were within two of the number in the previous week; 7 occurred in Edinburgh. The fatal cases of scarlet fever, which had been 5 and 4 in the preceding two weeks, rose last week to 8, of which 5 were recorded in Glasgow and 2 in Edinburgh. Two of the 4 deaths from "fever" occurred in Glasgow. The death from small-pox was returned in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had steadily increased in the preceding seven weeks from 135 to 204, declined last week to 148, but were 26 above the number returned in the corresponding week of last year. The causes of 53, or 8·7 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 30·1, 38·3, and 40·5 per 1000 in the preceding three weeks, declined again to 34·6 in the week ending March 27th. During the first twelve weeks of the past quarter the death-rate in the city averaged no less than 33·5 per 1000; the mean rate during the same period did not exceed 25·1 in London and 20·0 in Edinburgh. The 234 deaths in Dublin last week showed a decline of 40 from the high number returned in the previous week, and included 18 which were referred to the principal zymotic diseases, against 19 and 13 in the previous two weeks; 12 resulted from whooping-cough, 4 from diarrhœa, 1 from "fever," 1 from scarlet fever, and not one either from small-pox, measles, or diphtheria. These 18 deaths were equal to an annual rate of 2·7 per 1000, the rates from the same diseases being 2·6 in London and 2·5 in Edinburgh. The fatal cases of whooping-cough, which had declined in the preceding four weeks from 18 to 6, rose again last week to 12. The deaths referred to "fever" (typhus, enteric, or simple), on the other hand, declined from 6 in each of the previous two weeks to 1. The 4 deaths attributed to diarrhœa showed an increase upon the numbers in recent weeks. Five inquest cases and 7 deaths from violence were registered; and 69, or considerably more than a quarter of the deaths, were recorded in public institutions. The deaths of infants showed a considerable decline, while those of elderly persons had increased, and exceeded the number in any previous week of this year. The causes of 30, or nearly 13 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

WAR OFFICE.—Grenadier Guards: Surgeon-Major F. B. Baker is placed on retired pay with the honorary rank of Brigade Surgeon; Surgeon George B. Stuart, M.B., to be Surgeon-Major, vice F. B. Baker, retired.

ARMY MEDICAL STAFF. — Surgeon-General Grahame Auchinleck, M.D., has been placed on retired pay; Brigade Surgeon Oliver Codrington, M.D., is granted retired pay, with the honorary rank of Deputy Surgeon-General; Surgeon-Major William Robertson, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon; Deputy Surgeon-General William Arthur Thomson, M.B., to be Surgeon-General, vice Grahame Auchinleck, M.D., granted retired pay; Deputy Surgeon-General Edward Malcolm Sinclair, M.D., from half-pay, to be Deputy Surgeon-General, vice William Arthur Thomson, M.B., promoted. Brigade Surgeon Edmund Greswold McDowell, C.B., to be Deputy Surgeon-General, vice Alexander Guthrie, M.D., deceased.

ADMIRALTY.—Royal Naval Artillery Volunteers, Clyde Brigade: John Gray McKendrick, M.D., LL.D., F.R.S., to be Honorary Staff Surgeon.

YEOMANRY CAVALRY. — Lancashire Hussars: Surgeon Edward Henry Beaman resigns his commission.—Middlesex: Edward Stewart, Gent., M.D., to be Surgeon.

ARTILLERY VOLUNTEERS. — 3rd Middlesex: Surgeon Edward Godfrey Purcell is granted the honorary rank of Surgeon-Major.—3rd Lancashire: Michael John Fox, Gent., to be Acting Surgeon.—2nd Middlesex: Surgeon Thomas Thyne, M.D., is granted the honorary rank of Surgeon-Major.

ENGINEER VOLUNTEERS. — 2nd Gloucestershire (the Bristol): George Munro Smith, Gent., to be Acting Surgeon.

RIFLE VOLUNTEERS.—3rd (the Buchan) Volunteer Battalion, the Gordon Highlanders: Alexander Forbes Trail, Gent., M.B., to be Acting Surgeon.—1st Berwickshire: James Duncan Jeffrey, Gent., to be Acting Surgeon.—2nd Glamorgan: Captain Edmund Samuel Warburton to be Acting

Surgeon.—3rd Lancashire: Surgeon John Burns is granted the honorary rank of Surgeon-Major.—6th Suffolk: Acting Surgeon William Thomas Angove resigns his appointment.—2nd Wiltshire: Surgeon and Honorary Surgeon-Major Charles Hitchcock, M.D., resigns his commission; also is permitted to retain his rank and to continue to wear the uniform of the corps on his retirement.—2nd Volunteer Battalion (the Gloucestershire Regiment): Arthur Fowell Turner, Gent., to be Acting Surgeon.—1st Dorsetshire: Surgeon Robert Godolphin Long resigns his commission; also is granted the honorary rank of Surgeon-Major and is permitted to continue to wear the uniform of the corps on his retirement.—3rd Durham (the Sunderland): Robert John Collie, Gent., M.D., to be Acting Surgeon.—3rd Volunteer Battalion (the Norfolk Regiment): Acting Surgeon Herbert Francis Prince resigns his appointment.—10th Lanarkshire (Glasgow Highland): George Bell Todd, Gent., M.B., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—I have been surprised to see how little notice has apparently been taken of the proposed changes for the admission to the Fellowship of the Royal College of Surgeons of England. I allude more particularly to the exemption from the Primary Examination of Members of fifteen years' standing. I trust that, according to the well-known maxim "Audi alteram partem," you will allow me space to enter my protest against this proposed change, although by so doing I show want of agreement with some of the conclusions in your leader in the issue of the 20th inst.

It would be interesting to know on what grounds the Council of the College has felt it to be necessary to increase the number of Fellows on a reduced qualification. At the present time the diploma F.R.C.S. Eng. is considered, and I believe rightly so, the "blue ribbon" of surgical diplomas, I may say of the world. Why? Because of the known severity of the examinations, even apart from the number of distinguished men who have held it. Of the actual examinations the Primary is nowadays the severer, requiring much training and study as well as ability to acquire the requisite knowledge of anatomy and physiology. Every vexatious difficulty, so far as the curriculum is concerned, has now been removed, such as the necessity for extra courses of dissections, lectures, or even the waiting till a certain age is reached. Now any Member, as soon as he has been six years acquiring the knowledge of his profession, may, if he has the ability, present himself for examination and pass. "Where there is a will, there is a way." I know several gentlemen who, whilst engaged in large general practices, by the exercise of the necessary self-denial, have *made* time, read up, and passed the Primary as well as the Final. There is such a frightful tendency at present to level *down*. For goodness' sake, let some diplomas remain which are really distinctions, and which demand serious hard work as well as ability. I doubt whether there be any necessity, or it be even desirable, either in the interest of the College or of surgery generally, to increase the number of Fellows by lowering the present standing of a severe, searching, and scientific examination. There is no falling off in the number of candidates willing and able to undergo the test under the present system. On the contrary, year by year they are steadily increasing. Exactly the same argument might be used in the case of M.D. or M.B Lond., or indeed of any good medical degree, for the exemption to senior men of "subjects of minor importance to the practitioner." Why should not the First M.B., the Preliminary Scientific, or even the Matriculation be dispensed with? I believe the College made a retrograde movement some years ago in abolishing Greek and other extra subjects in the Preliminary Examination for the Fellowship.

I take no exception to the proposal to confer the honorary Fellowship on certain men of standing who have specially distinguished themselves, provided that the power is exercised with very great discretion. They will be known as F.R.C.S. (Hon.), and will not be confused with F.R.C.S. (Exam.), which latter will always carry with it the greater distinction.

I cannot but foresee disaster to the prestige of the College, to its Members equally with its Fellows, if so short-sighted a policy as lowering the standard of any of its examinations be carried out.

Your obedient servant,

London, March 29th, 1886. CHARLES GROSS, M.B., B.S.

THE LATE DR. BALY.

To the Editor of THE LANCET.

"——et idem
Indignor, quandoque bonus dormitat Homerus."

SIR,—The words with which I have ventured to cap this letter rose to my lips on Saturday morning, when startled by the new reading of history contained in the first of your "Annotations." You have there stated, in a moment of very unaccustomed forgetfulness, that Dr. Baly was never made Physician to Her Majesty the Queen; whereas that honourable position was really occupied by him for a year and a half.

In the obituary notice given in your issue of Feb. 9th, 1861 (p. 147) occur these words:—"In 1859 a physician was required who might share with Sir James Clark the office of regular attendance on the Queen and Royal Family. Those who were charged to make a just selection for this high office consulted free from all personal regards, from all solicitations and undue influences; they had the whole profession to choose from; and when, to Baly's great surprise, he was selected, the unanimous voice of the whole profession acknowledged that he was the fittest man. How well he justified the opinion was shown by the proofs of confidence which he received from the Queen and the Prince Consort, and by the esteem in which he was held in all the palace."

The Prince Consort, writing to Baron Stockmar on Jan. 29th, 1861, says (see "Life of Prince Consort," by Sir T. Martin, vol. v., p. 288): "We had the great misfortune yesterday to lose Dr. Baly, who was killed in an accident on the railway between London and Wimbledon. For us this is a serious loss, as he had gained our entire confidence, and was an excellent man, and Clark has quite given up practice."

I may here with propriety add that substantial proof of the Queen's gratitude and esteem followed, not long after Dr. Baly's death, in the assignment to his younger and unmarried sister of a set of apartments at Hampton Court Palace, which she still enjoys.

I am, Sir, yours faithfully,

March, 1886. ONE OF DR. BALY'S EXECUTORS.

*** Our correspondent will, we think, acknowledge, on reflection, that we correctly stated the facts. It is perfectly true that in April, 1859, the Queen was "pleased to appoint Doctor William Baly, F.R.S., to be Physician Extraordinary to Her Majesty," and we regret that we omitted to mention this. The "coveted post" to which we alluded was, however, that of *Physician in Ordinary* to the Queen. We are well aware of the high appreciation in which Dr. Baly was held by the Queen and the Royal Family, and that he went abroad with Her Majesty and attended her in the absence of Sir James Clark.—ED. L.

THE USE OF ANÆSTHETICS.

To the Editor of THE LANCET.

SIR,—In the annotations in this week's LANCET attention is drawn to the dangers which attend the use of chloroform when employed *alone*.

Having had an extended experience in the very frequent administration of chloroform alone, I would venture to think that the very strong opinion publicly expressed against chloroform in THE LANCET is likely to do serious harm, by creating a panic and raising fears and doubts which are not altogether justifiable. If we possessed an anæsthetic agent that was absolutely safe, the cry against chloroform would assuredly be right; but it is not so, and deaths from ether and other agents do occur. Ether may, and

does, produce at times alarming and even fatal symptoms. I have seen sudden syncope occur during the administration of ether with Clover's smaller apparatus, and active measures called for to recover the patient. I am convinced that in some cases of strangulated hernia (not necessarily in elderly people) a fatal termination has been hastened by the administration of ether; and though ether rarely kills suddenly, it assuredly does so in some cases—it may be a few hours, or even days, after its administration.

As regards chloroform especially, ought it not, perhaps, to be more fully recognised than it is at present that its administration in surgical operating practice requires a very special study and experience? And, perhaps, it is not justifiable to recommend to a patient that anyone is competent to give chloroform. To enforce the truth of this it is only necessary to refer to the diverse ways in which chloroform is administered. In many cases the attention of the administrator is, unconsciously perhaps, divided between the chloroform and the operation.

In the hands of one who is careful at every moment to watch the respiration of his patient and to ignore the operation, and who gives enough and no more chloroform to produce a quiet unconsciousness, and who avoids pushing it to the degree of stertor, and who also does not neglect the position of the lower jaw and the state of the pulse, chloroform is a comparatively safe and most reliable anæsthetic. The operating surgeon, or his assistant, should assist in its careful administration by avoiding sudden alterations in the position of the patient. It is not justifiable to give chloroform in the sitting or, as I believe, in the semi-recumbent position, and perhaps chloroform should be abolished in dental practice. A subcutaneous injection of one-sixtieth of a grain of atropia with one-twelfth of a grain of morphia should be given about ten minutes before commencing the administration of chloroform. Considering the enormous benefits conferred by chloroform, I would say that, in my humble opinion, what is wanted is not so much a safe anæsthetic as a safe anæsthetist, and to urge that in the hands of those experienced in its use chloroform possesses many advantages both to the patient and the administrator that ether does not. In conclusion, Sir, I write of chloroform as I have found it, and in all humbleness and lowness of spirit, and with no desire to stir up the wrath of the champions of ether *v.* chloroform.

I am, Sir, your obedient servant,

ARTHUR G. BLOMFIELD, M.D.,
March 27th, 1886. House-Surgeon, Devon and Exeter Hospital.

*** Dr. Blomfield does not make any reference to the A.C.E., the mixture of the three agents, which forms a safe anæsthetic, and by the use of which the dangers of chloroform alone and the inconveniences of ether are avoided.—ED. L.

THE DUBLIN HOSPITALS COMMISSION.

To the Editor of THE LANCET.

SIR,—Your Dublin correspondent has quoted extensively from the evidence given by Dr. Thomson before the Hospitals Commission, and as he seems to agree with him that Dublin is over-hospitalled, and that some of the existing hospitals should be amalgamated, to the advantage of teaching and of the public as well as of the patients, it is right that the other side of the question and reasons for the opposite opinion should be given.

1. Amalgamation is impracticable because the distances are too great to render one auxiliary or ancillary to the other for administration, treatment, or teaching. Moreover, the assurance of a friendly and harmonious co-operation of different staffs would be impossible. 2. The proportion of 6*s.* 8*d.* in the £ to the food of patients and 13*s.* 4*d.* to the general establishment is not worse than the Poor-law system, and it is ordinarily the proportion of necessaries to general house expenses in private families. 3. Dublin is not over-hospitalled, and a comparison with any other city does not afford ground for argument, because Dublin contains a general labouring class (according to the health officer, Sir Charles Cameron, and the Registrar-General, Dr. Grimshaw, not one of whom was examined before the Commission) of about 160,000 or 33,000 families residing in 48,000 rooms with utterly inadequate cubic space, and with a mortality of 42 per 1000 per annum. Such being the case, there will at least be 6 per cent. of this class constantly sick, or 9600; and if we allow that one-half will be able to provide themselves through dispensaries, we have left another to provide for, and at present there are about 2000 in the union hospitals, and there is bed accommodation space in all the hospitals for about 2400; so that Dublin, under its condition, cannot be shown to be over-hospitalled. Each of the staff has only a few patients on account of want of funds. 4. When medical fees are reduced, houses for the poor equal, and the provident system extended in Dublin as in other large towns in the empire, it will be over-hospitalled. 5. It is reasonable that the Imperial grant of £16,000 a year, originally given for encouraging medical research and teaching, as well as for support of hospitals, should be divided into a portion for medical research open to all medical men in the country and into a portion for results. I have clearly and incontrovertibly proved that during twenty-one years at the Army Medical Examinations the Dublin Medical School has lagged in the rear. My proposition, I think, would restore it to its lost position. 6. The public grant should not be shared with specialist hospitals. The reason is obvious. They will always have their special patrons, and the teaching in them, being rather athletic than developmental, does not require national support. 7. The Commission was scarcely well chosen, and the witnesses should have included Sir Charles Cameron and Dr. Grimshaw, the health officer and Registrar-General respectively.

I have the honour to be, Sir, yours faithfully,

JOHN ROCHE, M.D., &c.
Mount Clarence, Kingstown, March 22nd, 1886.

WELLINGTON COLLEGE.

To the Editor of THE LANCET.

SIR,—My attention has been drawn to an occasional note in THE LANCET of March 20th, which speaks of the "number of boys at present excluded from classes through illness" in this school. As such statements, apparently circumstantial, and given with authority, though not derived from nor verified at any official source, are likely to alarm parents and to do wrong to the school, will you allow me to say that the average number of boys out of school on the ground of ailment or accident, grave or slight, during the present term has been 13·6 out of a total number of 405. Unless I am much misinformed, this is not a large average as compared with other healthy schools in such an exceptionally severe spring. As soon as the weather mitigated, the number dropped to the usual average. The maladies have been mainly slight colds and coughs. There have been two cases of pneumonia, both of them now convalescent. Perhaps I may also say that the daily average of boys out of school during the past year was under 4, during the past two years under 4·5, out of rather more than 400. In the two years there have been only two cases of infectious illness, one of measles and one of scarlatina.

I am, Sir, your obedient servant,

E. C. WICKHAM,
Wellington College, Wokingham, March 23rd, 1886. Head Master.

*** Mr. Wickham does not mention that during the period embraced by his letter, in which the institution is represented to have been exceptionally free from illness, one of the masters of the College died from septicæmia after six days' illness, that a boy died from peritonitis after four days' illness, that one of his own household died also of peritonitis, that a servant of the College died from pneumonia after four days' illness, and that a labourer on the grounds died also of pneumonia complicated by septicæmia. These following other similar deaths are suggestive of insanitation. From 13 to 14 per cent. of the deaths in the registration area in which Wellington College is situated are caused by pneumonia. These facts point to a distinct pneumonic tendency in the locality. The two boys recently ill with pneumonia, out of an average of from thirteen to fourteen cases of sickness, is a further confirmation of this disposition to pneumonia in the district. At the schoolboy age pneumonia is rare, for it is a disease affecting chiefly those under five and over twenty. Moreover, an average of from thirteen

to fourteen boys incapacitated for work through illness at any one time, and in the absence of infectious disease, is more than should occur among healthy schoolboys. If Mr. Wickham will compare this number with the number of boys detained at home through illness after the Christmas vacation, when they have been subjected to all the irregularities and festivities of Christmas holiday time, during the coldest month of the year, we think he will find that the illness among the boys while under his charge, "in loco parentis," is in excess of what occurs while under their own parents' supervision. This should not be the case. We hope the time is not far distant when every public school will be called upon to make an annual return of sickness. At present there are no trustworthy statistics available.—ED. L.

HOPEINE.

To the Editor of THE LANCET.

SIR,—Referring to a letter of "Seismos" in THE LANCET, p. 497, regarding the composition of hopeine, I beg to call your attention to the explanation published by Dr. Williamson in the *Chemiker Zeitung* (1886, p. 238). According to this statement, the wild Arizona hops, as well as the lupuline obtained therefrom, contain at least two alkaloids—viz., one similar and probably even identical with morphia, called isomorphia, the other different from morphia in its physical and chemical properties as well as in its physiological action. The fact, proved by further experiments conducted by Dr. Williamson, that the precipitated hopeine prepared by an English manufacturing firm and supplied to French physiologists contained two alkaloids (both extracted from lupuline) has been confirmed by an analysis by Mr. Harland and independently by Dr. Weissenfeld. The quantity of isomorphia, according to Dr. Weissenfeld's statement, is larger in the lupuline than in the hops, while in hops separated from lupuline the other alkaloid (hopeine) is contained in larger proportion. As the quantity of alkaloids contained in hops is exceedingly small, the experiments meet with unusual difficulties. It seems that even Dr. Williamson's pure hopeine contained traces of isomorphia, and the principal object of further experiments is the separation of the two alkaloids after extracting the same from hops or lupuline. There can be no doubt that hopeine greatly differs from morphia and from isomorphia. A small sample I received from Dr. Williamson (although producing the well-known morphia reactions arising probably from traces of isomorphia) had a very marked mydriatic influence on the pupil of the eye, while morphia never produces dilatation. The pungent bitter flavour of pure hopeine and the burning effect on the nerves of the tongue are followed by insensibility of the same to a certain degree. Concentrated solutions endermically applied produce a prickly sensation on the skin. The effect on the system, if used hypodermically, is exceedingly strong, and hopeine could not be injected without danger in the same dose as morphia: dogs are killed by half the dose of hopeine than that required of morphia.

I am, Sir, yours faithfully,

Camomile-street, March 12th, 1886. W. WILD, M.D.

DEGREES FOR LONDON MEDICAL STUDENTS.

To the Editor of THE LANCET.

SIR,—"Post factum nullum consilium" is indeed most true, and will be bitterly proved to many a man now labouring to get the London Colleges' licence to practise, unless our Colleges have the pluck, they certainly have the success, to obtain power to grant degrees instead of that, to the general public, unknown quantity called a "licence." I speak from experience on this subject, and none know where the shoe pinches so well as he who wears it.

A short time since I succeeded to a good-class practice in a residential suburb of a large provincial town. My professional brethren are mostly old-established M.D.'s, and to my certain knowledge, having been told by mutual friends, I have lost several families simply because they would have a "Doctor," and not a mere "Surgeon"; besides this, I am constantly reminded, of course indirectly and most politely, that a surgeon is a very second-rate man compared to an M.D. A few days ago a sort of deputation of relatives and friends called upon me to urge my taking a degree, for, being anxious for my success, they saw, they said, how much the want of a degree handicapped me. This, Sir, is outside testimony, and therefore of value. Of course I have now no time or opportunity to take a degree, and consequently must go on living down public opinion that our English qualifications are as naught compared to an M.D. until our Colleges assert our rights.

No time could be more opportune than the present for our Colleges to get the Charter they are entitled to. Her Majesty has conferred a great honour upon them and us; would she not be equally willing—nay, anxious—to do us justice as well as honour? I am, Sir, yours truly,

March, 1886. JUSTICE.

CYCLICAL ALBUMINURIA.

To the Editor of THE LANCET.

SIR,—I am sorry that I did not notice Dr. Pavy's acknowledgment of my paper, and am obliged to him for his letter. My experiments were something more than repetitions of those in his Gulstonian lectures, and arrived at different results. My table was not intended to show the albumen per hour. The periods are too long, and the results, when used for this purpose, obviously misleading. Runeberg (zur Frage des Vorkommens der Albuminurie bei gesunden Menschen) is the only writer I know who has given a table of the hourly secretion of albumen, and that fully bears out my argument, as it shows that the albumen in the forenoon is not only relatively, but absolutely greater per hour.

I am, Sir, yours obediently,

Birmingham, March 31st, 1886. ROBERT SAUNDBY, M.D.

EDINBURGH.

(From our own Correspondent.)

END OF THE WINTER SESSION.

THE winter courses of lectures in the Medical Faculty of the University came to an end on March 31st, the customary valedictory addresses being delivered and the results of the class competitions announced. In the Extra-academical School the session was brought to a close on the 26th inst.

SCHOOL OF MEDICINE, SURGEON'S HALL.

At a recent meeting of the lecturers to the Royal College of Surgeons, Dr. D. Berry Hart was elected to the Lectureship of Midwifery and Diseases of Women, in the room of the late Dr. Angus Macdonald. Dr. Hart has already acquired the reputation of a successful extra-academical lecturer upon these subjects, having delivered courses of lectures during two summer sessions, which have been well attended by students, and he will prove a most valuable addition to the teaching staff of the College.

HONORARY DEGREES OF EDINBURGH UNIVERSITY.

A list of honorary degrees to be conferred at the approaching graduation ceremonial has been published. Amongst those who are to receive the degree of LL.D. are Professor Dicey, Fellow of All Souls College, Oxford; Mr. R. M. Cust, Secretary of the Royal Asiatic Society; Dr. F. J. Mouat; Sir Chas. Nicholson, Bart., M.D., formerly Chancellor of the University of Sydney; Mr. John Small, M.A., Librarian to the University of Edinburgh; Dr. Schmitz, formerly Rector of Edinburgh High School; and Mr. John Wilson, Emeritus Professor of Agriculture in the University of Edinburgh, and until recently Secretary to the Senatus Academicus.

UNIVERSITY REFORM.

The members of the University General Council Association are again taking active steps in the direction of urging upon Government the necessity for a sweeping measure of reform. A memorial upon the subject, signed by Dr. Rutherford Haldane, chairman of the General Committee of the Association, has been forwarded to the Secretary for Scotland. The memorial, which is a carefully compiled document of considerable length, contains a number of recommendations, the substance of which, it is hoped, will be introduced into the Universities (Scotland) Bill, when that long-expected measure does at length make its appearance. These recommendations deal specially with the relative status and powers

of the University Court, the Senatus, and the General Council, In the first place, it is urged that the General Council, a body composed of 5000 members, graduates of the University, should have some distinct representation in the management of University affairs. To secure this, it is proposed to aggrandise the University Court by giving it the entire control of University finance, which is at present administered by the Senatus, by increasing its membership, at the same time making it a public Court, and by making it truly representative of all University interests, the proposition being that of the fifteen members of the proposed Supreme Court no fewer than five shall be elected by the General Council, whilst the Senatus shall have two representatives and the matriculated students one; the Town Council and certain educational bodies to be represented also by assessors. Another of the recommendations deals with extramural or open teaching; it is strongly urged that this principle should be extended to all the faculties in the University, the great success which has attended its application to medicine, in the development of the Edinburgh School, being cited as an instance of what might result in other branches of technical education were the system more extensively brought into vogue. The memorial is a document of considerable importance, since it represents the view very generally held by members of the Extra-academical School, and by many who are even more closely connected with the University.

PROPOSED STUDENTS' UNION.

A great effort is at present being made in Edinburgh by the students and their friends to found a Union and Debating Club on the plan of the institutions which bear the same name at Oxford and Cambridge. The scheme includes the erection of club buildings, which are to contain a fine hall for union debates, dining, smoking, and reading rooms, committee rooms, &c. It is hoped that an institution of this character will, to some extent at least, obviate the great defect in the Scottish university system—viz., the all but complete isolation in which the students individually live, and as a result of which they lose that social interchange of ideas which is so important a part in the broadening influences of an academic career. The scheme has received already considerable material support from past graduates of the University, and it is hoped that many more will contribute towards this valuable addition to the educative effectiveness of their *alma mater*. Contributions in furtherance of the scheme should be sent to the secretaries of the Students' Representative Council, at the University.

Edinburgh, March 31st.

IRELAND.

(From our own Correspondent.)

SACCHARIN.

SACCHARIN is a substance lately discovered in America by Professor Falberg, which is 230 times sweeter than sugar, and is obtained from coal-tar. At a recent meeting of the Royal Dublin Society Professor Emerson Reynolds, F.R.S., read a paper on this substance, which is of importance to medical practitioners, inasmuch as it can be used to sweeten and render palatable the food of persons who, suffering from diabetes, are precluded from using sugar, and for some months past it has been used for this purpose in one of the Berlin Hospitals. In appearance it resembles flour, but it is denser and is dissolved easily by hot water. It is rather an expensive substance, its present price being about 40s. per pound. The reason of the high cost of saccharin is due to the complex nature of the operations in obtaining it from coal-tar. As, however, an ounce of it will go as far as fourteen pounds of sugar, its actual expense as a sweetening agent is not much greater than that of sugar. Professor Reynolds referred in his paper to the question as to whether this substance could be taken without detriment to the human frame. To ascertain this, experiments were made on dogs, and eighty grains were administered daily to a dog for some time, without the slightest ill effects. When the cost of production becomes lessened saccharin may become a formidable rival to the sugar manufacture.

LEFT LUMBAR COLOTOMY.

I had an opportunity last Tuesday of seeing, at the City of Dublin Hospital, some cases of lumbar colotomy, recently operated on by Mr. H. Gray Croly, senior surgeon to that institution. The cases were three in number: two males, operated on for scirrhus of the rectum eight days and six weeks since respectively; and a female a fortnight ago, for recto-vaginal fistula. The cases are all going on favourably. It is rather an unusual circumstance that there should be three cases of lumbar colotomy in hospital at one time, and operated on by the same surgeon, and it is therefore worth recording. In the same hospital there is another patient, who, singular to state, has for the second time had Cock's operation for impermeable stricture performed on him by Mr. Croly—a most unusual occurrence.

SCLERODERMA.

An example of this very rare disease was exhibited last week at a meeting of the Medical Section af the Academy of Medicine in Ireland, by Dr. George F. Duffey. The subject was a female, and the disease commenced in February, 1885, on the index and middle fingers of the right hand, and in the following October both hands became implicated. At present there is a good deal of rigidity of both forearms, with some swelling of the hands, while the side of the neck and front of the chest are also implicated. The treatment adopted by Dr. Duffey was the internal administration of the iodide of potassium, and the local application of glycerine of starch, and from all accounts an improvement in the parts affected has certainly taken place.

THE DUBLIN BARRACKS.

It is stated that in consequence of the condition of the barracks in Dublin it is contemplated, in addition to the block of new buildings which are to be built at a cost of £112,000, to expend a sum of £1750 on the drainage of the Richmond Barracks.

Dr. Thomas Leary, of Castlederg, has been placed on the Commission of the Peace for the County of Tyrone.

Dublin, March, 30th.

BELFAST.

(From our own Correspondent.)

THE ROYAL UNIVERSITY.

A CONTEST is at present going on for a seat in the Senate of the Royal University. Mr. William Thompson of Dublin is a candidate, and will be strongly supported by the northern graduates of all professions. Mr. Thompson is himself a graduate in Arts and in Medicine of the late Queen's University, and is a leading Dublin surgeon, being connected with one of the hospitals. The feeling here is very much in his favour, and his election will give great satisfaction.

THE ROYAL HOSPITAL.

At the ordinary weekly meeting of the Board of Management of the Royal Hospital, held on March 20th, Mr. W. T. B. Lyons, D.L., was presented with two portraits of himself, one for the hospital, the other for his own family, by the members of the Board of Management and Life Governors. Mr. Lyons has for years devoted himself with energy to the work of the Royal Hospital, and, as a speaker at the meeting pointed out, he has been a zealous worker and sound adviser, in the darkest as well as the brightest days of the charity.

BELFAST OPHTHALMIC HOSPITAL.

From the reports presented at the last annual meeting of this deserving charity, we gather that during the past year 1260 cases have been treated in the extern department, 890 for diseases of the eye, 360 for diseases of the ear, and 70 for throat diseases, while in the wards of the hospital 89 cases have received treatment for more severe forms of similar diseases. The recipients of the charity have been chiefly the poor of Belfast and the North of Ireland. During the year the sanitary condition of the hospital has been carefully inquired into, and every effort made to keep the house in an excellent state of sanitation. During the past year a large sum of money has been expended in extensive and much-needed repairs, and in painting and papering the greater part of the house. Lady Johnston, with her usual generosity, on ascertaining this, offered to defray all the expenses therewith, and the accounts, amounting to over £54, have since most generously been paid by her. A large class of students is receiving clinical instruction at the hospital.

THE TOWN COUNCIL.

Owing to the death of one of the aldermen there is at present a contest, and Dr. James Graham has been requested to come forward by ratepayers of all shades of political opinion, who deplore the present intolerable nuisance caused by the River Lagan, which is practically an open sewer, and who think that there should be some amendment of the deleterious influence caused by emanations from the gas-works. Dr. Graham, who lives in the vicinity of both these nuisances, pledges himself to endeavour to have the existing state of sanitation remedied. As Dr. Graham is deservedly popular, and as he is coming forward on the public health platform, we are likely to have an interesting contest.

Belfast, March 30th.

PARIS.

(From our own Correspondent.)

REAPPEARANCE OF CHOLERA IN BRITTANY.

INTELLIGENCE has reached Paris of the reappearance of cholera in Brittany. It will be remembered that the disease committed great havoc in the Guilvince and Audierne, two fishing villages, to which the origin of the present threatened epidemic has been traced, and where, it is suggested, the germs of the disease have lain dormant till now. The reappearance of the disease is attributed, as usual, to overcrowding and to the filthy condition of these places, particularly at this time of the year, when there is a great influx of fishermen from different parts of the littoral of Brittany. Within the last fortnight about 2000 have already arrived, who, finding it difficult to get lodgings, huddle themselves together in every available hut, where they take their families, nets, and other instruments used in fishing, without even washing them or themselves before retiring. Notwithstanding the severe lesson of last year, nothing seems to have been done to avert the possible return of another epidemic of cholera. It is reported that on the 23rd inst. a fisherman arrived at Tréboul from Audierne, where it was known that he was affected with cholera. He was soon followed by others equally affected by the disease, and to the 29th of March, after a few deaths, the exact number of which was not given, there were in the small village of Tréboul thirty cholera patients, one-third of whom are said to be in a very serious state. It would appear that this locality is not the only one infected, as two fatal cases were reported to have occurred at Gouesnou, about six kilometres from Brest, and several cases have occurred at Concarneau, where one death took place on the 26th. There cannot be two opinions as to the culpable neglect on the part of the authorities in having allowed these men, who were known to have been affected with cholera, to travel about the country and thus propagate the seeds of the disease.

DEATH OF DR. FOURNIÉ.

Dr. Edward Fournié, a well-known laryngologist, died on the 24th inst. in the fifty-fourth year of his age. He began his career as an officier de santé in the navy during the Crimean War. After the war he took his degree at Montpelier, then proceeded to Paris and devoted himself to scientific researches, particularly on the functions of the different parts of the encephalon and of the nervous system. He published several works appertaining to the brain and throat, and was for many years Medical Director of the National Institution for the Deaf and Dumb. He was also editor of the *Revue Médicale Française et Etrangère*.

Dr. Gallard has been elected member of the Academy of Medicine; and Professor Vulpian, Perpetual Secretary to the Academy of Sciences, in the place of M. Jamin (deceased).

Paris, March 31st.

BRISTOL EYE HOSPITAL.—At the annual meeting of the subscribers to this institution on the 29th ult., it was reported that during last year the number of patients under treatment was 11,224, an excess of 709 over the previous year. The receipts amounted to £771, a sum which exceeded the expenditure by £40. The premises at present in use are inadequate, and the committee appeal for funds to enable them to carry out in a satisfactory manner their intention of considerably increasing the accommodation of the hospital.

NEW YORK.

(From our own Correspondent.)

AN HONORARY DEGREE FOR MR. LAWSON TAIT.

AT the annual commencement of the University Medical College on March 6th, the announcement was made by the Chancellor that the University had conferred the honorary degree of Doctor in Medicine upon Mr. Lawson Tait of Birmingham, England. Applause greeted this action of the University, for Mr. Tait has many very enthusiastic admirers in New York. His visit to this city, and especially his operation upon two patients in the great amphitheatre of Bellevue Hospital, was a memorable event. He diagnosed diseased ovaries in each case, after a brief examination in the presence of several hundred medical men and students, and proceeded at once to operate. His diagnosis proved to be correct, and both patients made good recoveries, though antiseptics were not used. He has several followers in New York, and extirpation of the ovary is now of almost daily occurrence. The antiseptic treatment, however, is very rigidly followed.

DEATH OF DR. S. O. VANDERPOEL.

Dr. Vanderpoel was well known for the interest he took in quarantine reforms. He was for many years health officer of this port, and was successful in placing it on a thoroughly practical basis. Detention for a given period was no longer the rule governing the care of ships, but sanitary inspection and cleansing became the practice. The result of this policy was that shipmasters took the utmost pains to bring their vessels into port in the most cleanly condition, and thus they were able to escape quarantine. Dr. Vanderpoel was Professor of Hygiene in the University Medical College. He was a supporter of the new code movement.

DEATH OF DR. AUSTIN FLINT.

While writing the above the announcement was made that this eminent physician had been stricken with cerebral apoplexy, and immediately after followed the news of his death. No physician was better and more favourably known in this country. He had been teacher and author for forty years. His father and grandfather were physicians of considerable eminence, and he early began a course of studies preparatory to entering upon the study of medicine. He first located in the western part of this State, where he established a medical periodical. He began to give courses of lectures in medical colleges, and at one time was connected with a school in New Orleans. Subsequently he located permanently in New York, where his best work was done. He was selected as president of the proposed session of the International Medical Congress at Washington in 1887. Dr. Flint was in his seventy-fourth year, and gave no evidence of failure of health. He was busily preparing for the meeting of the British Medical Association, where he was to deliver an address.

MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

The next meeting of this body will soon occur, at St. Louis. It is anticipated that some decisive action will be taken in regard to the much-disputed meeting of the International Medical Congress. There is no change in the current of medical opinion in regard to the controversy which has arisen. The profession as a body take little interest in the matter, while those engaged actively in the dispute remain hostile and unreconcilable. It is hoped that when the Association meets all differences will be adjusted and harmony secured.

New York, March 14th.

MEDICAL NOTES IN PARLIAMENT.

The Lunacy Acts Amendment Bill.

IN the House of Lords, on the 30th ult., the Lunacy Acts Amendment Bill was considered in Committee on recommitment. The Lord Chancellor proposed amendments, which were agreed to, modifying in some particulars the clauses relating to private asylums. Lord Grimthorpe expressed his opinion that no case whatever had been made out against private asylums, and he quoted figures to show that the discharges from those institutions were more numerous than the discharges from public asylums. The Lord Chancellor did not concur in the conclusions of Lord Grimthorpe,

and he pointed out that, untested, the figures relied on by that noble and learned lord were of little value in the argument, because the removals from one private asylum to another were much more frequent than those from one public asylum to another, and no doubt all removals were enumerated under discharges. The various clauses having been agreed to, the Bill was ordered to be reported with amendments.

The Idiots Bill.

The Lord Chancellor moved the second reading of the Idiots Bill, which, he said, was drawn on the same lines as his Lunacy Acts Amendment Bill. The motion was agreed to.

Contagious Diseases Acts Repeal (No 2) Bill.

In the House of Commons, on the 25th ult., Mr. Stansfeld moved the second reading of this Bill. Mr. Cavendish Bentinck strenuously opposed the repeal of the Acts, and gave instances of cases in which their operation had been beneficial. Eventually, when the question was put a first time a division was challenged, but on the second occasion the second reading was agreed to without opposition.

Vaccination.

In reply to Mr. A. O'Connor, who asked the Under Secretary of State for Foreign Affairs if he would obtain information respecting the vaccination with humanised lymph of seventy-nine children in the Island of Rügen in June last; whether it was true that seventy-six of them were attacked in a few days with contagious disorder, which was communicated to their parents, brothers, and sisters to the number of 320; what number of the children died; and whether the lymph was obtained from the Royal Vaccine Institution at Stettin,—Mr. Bryce stated that Her Majesty's Ambassador at Berlin had been instructed to report on the subject.

Obituary.

JOHN FREMLYN STREATFEILD, F.R.C.S.

ON Thursday, March 18th, there somewhat suddenly passed away, at his house in Upper Brook-street, John Fremlyn Streatfeild, the Senior Surgeon of the Moorfields Ophthalmic Hospital, Ophthalmic Surgeon to University College Hospital, and Professor of Clinical Ophthalmic Surgery in University College. His illness was a short one. He performed an iridectomy for glaucoma on the previous Friday, and saw some patients at his own house on Saturday morning, but he felt too ill to go out, and sought the aid of his friend, Dr. J. E. Pollock, whose unremitting care was unable to arrest the progress of an acute attack of pneumonia, which terminated in death at a few minutes before two on Thursday afternoon. Mr. Streatfeild had had several attacks of bronchitis, and a few weeks before his fatal illness had a threatening of pneumonia, which apparently passed away after a few days' rest in bed. In unselfish obedience to a professional call he took a railway journey into Kent on one of the last days of the prolonged severe weather, and received a chill, to the effects of which he succumbed.

John Fremlyn Streatfeild was the son of the well-known Kent antiquarian, the Rev. Thomas Streatfeild, of Chart's Edge, Westerham, Kent, by his second wife, Clare, the daughter of the Rev. Thomas Harvey, of Cowden, and was born on October 14th, 1828. His mother is still living, and in her ninety-third year. He was a delicate boy, and until the middle of his fifteenth year was educated at home by his father. He then went to the King's School at Canterbury, and afterwards for a short time to a school at Tunbridge Wells. He commenced his medical education as the private pupil of Mr. Curling, and entered as a student at the London Hospital. He became a Member of the Royal College of Surgeons in the year 1852, and during the Crimean War served, with many others known to fame, on the surgical staff of the British Civil Hospital at Smyrna. On his return to London he entered upon the study of ophthalmology, and was soon afterwards elected assistant surgeon to the Royal London Ophthalmic Hospital. In 1862 he obtained the Fellowship of the College of Surgeons. He had previously been appointed assistant ophthalmic surgeon, and soon after ophthalmic surgeon, to University College Hospital as the coadjutor of Professor Wharton Jones. He was temporarily compelled to resign this post, as a new rule had been adopted at Moorfields disqualifying for promotion at that hospital anyone who held another ophthalmic appointment. The rule was found to be inconvenient, and was speedily repealed, when Streatfeild was at once re-elected at University College Hospital.

Professionally Streatfeild will be best remembered for his great dexterity in the performance of purely ophthalmic operations. His facility in making his corneal sections was remarkable, and his skill gained for him a considerable reputation. A certain brusqueness of manner, however, militated against his obtaining a large practice, as sometimes to strangers it made him appear unsympathetic. Streatfeild required to be known to be appreciated; he was certainly not unsympathetic. Associated with his characteristic bluntness there was just beneath the surface a vein of fun ever ready to show itself, and with it no slight admixture of wit and humour. Deeper still there was a genuine sincerity, a large-heartedness, and a courageous conscientiousness which gained for him a wide respect and esteem. His circle of intimate friends was not large, as he was of somewhat retiring habits and little cared to show himself at the meetings of the Medical Societies. He was a staunch Churchman and religiously gave away a tenth of his income. He inherited his father's antiquarian and archæological tastes, and was a collector of Wedgwood, of books, of antique furniture, and especially of anything belonging to or illustrating the history of his native county of Kent, of which he had a great love. No mean draughtsman himself, he had collected a large number of drawings and sketches of much that is quaint and picturesque in Kent, of its churches, its gables and chimneys, many of which were done by his own hand during the holidays that he loved to spend with his family in what was to him truly the "Garden of England." With the sketches he brought together during these visits a large number of facts, historical and otherwise, bearing upon the history of Kent and upon its manners and customs, which he intended, if he had lived, to have made into a book. No doubt the Kent Archæological Society, of which he was an active member, will take care that all this interesting material is not lost.

Streatfeild was a frequent contributor to the literature of his specialty. For a short time he edited the London Ophthalmic Hospital Reports, and often have its pages contained notes of his cases and illustrations by his pencil. He wrote the chapters on Ophthalmology in Erichsen's great Text-book of Surgery, and papers and "notelets" have appeared in the columns of THE LANCET. More lately, he contributed several special articles to Quain's Dictionary of Medicine. His literary style of composition was peculiar, and to many readers it sometimes failed to convey clearly the meaning intended; but his writings always showed both originality and practical experience. He was one of the founders of the Ophthalmological Society of Great Britain, and its treasurer from its formation. Few of its Fellows who were present will forget the humour with which he recently demonstrated with huge dummy instruments the steps of the operation of extraction of cataract, as a suggested means of teaching to a class the manipulations of ophthalmic surgery.

Mr. Streatfeild was in his fortieth year when he married, and leaves a widow and three children.

O. E. P. CHARD, M.B. LOND., M.R.C.S., L.S.A.

GRIM death has of late been busy in our ranks. Among the members of our profession who have lately passed away might be enumerated many who have been more celebrated for their writings, or more widely known to the public at large, but none who will be more missed in private life, more lamented among his friends and patients, than the subject of this notice. Mr. Chard passed his examinations at the College and Hall in 1846. He commenced practice at Eccleston-street, Pimlico, in 1851, and while busily occupied in attending to an ever-increasing number of patients, found time to graduate and obtain the degree of Bachelor of Medicine at the University of London in 1861. His medical friends and neighbours had frequent opportunities of observing the zeal, the kindness, the solicitude, and—to his

poorer patients especially—the benevolence of the deceased. His charity to the really deserving was equalled only by the unostentatious manner in which it was bestowed. A harder worker never lived, and but for the cares of general practice, his education, penetrating intellect, and practical ability, would have secured for him a world-wide reputation. It was to his marked character of kindness to patients and abnegation of self that he owed his rapidly fatal illness in the sixty-second year of his age. On the 3rd inst. he was called to a patient suffering from severe pneumonia. In his anxiety to save a life, he spent many hours of the subsequent five days and nights by the patient's bedside. On the 8th inst. he broke down under this severe strain of his nervous system, took a severe cold ("a chill"), showed symptoms of peritonitis, and in spite of the anxious efforts of his medical attendants, succumbed to the attack on the 13th inst. Truly may it be said that, "He was skilful enough to have lived still if knowledge could be set against mortality."

Medical News.

UNIVERSITY OF CAMBRIDGE. — At a congregation held on March 25th the degree of Bachelor of Medicine was conferred on the following gentlemen:—

Walter Edwin Facey, St. John's; Herbert Paget Tayler, Clare; Walter Hamilton Hylton Jessop, and William Thomas Holmes Spicer, Gonville and Caius.

At Gonville and Caius College, the Shuttleworth Scholarship of the value of £60 for proficiency in Botany and Comparative Anatomy, open to the competition of all registered medical students of the University who are of not less than eight terms' standing, has been awarded to John Sydney Edkins, scholar of the College.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Court of Examiners held on the 22nd ult. and following days, the following passed the first half of the examination for the Letters Testimonial of the College:—

Joseph Daly, Joseph C. Lavertine, Ronald McDougall, John J. Myles, and Edmond F. B. Russell.

Twelve candidates were rejected.

At examinations recently held at the Medical School of the College, medals in Surgery were awarded as follows:—

Edwin Tyrrell Cummings, Senior Silver Medal.
Cecil L. Strangman, Junior Silver Medal.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on March 25th:—

Avarne, Arthur Blair, King Henry's-road, Regent's-park.
Aston, William, Ivy House, Codsall, Wolverhampton.
Harney, Thomas Richard Aloysius, M.R.C.S., Australia.
Sealy, Francis Marmaduke, Gosberton Vicarage, Spalding.

COLONIAL AND INDIAN EXHIBITION.—Her Majesty the Queen has intimated her intention of opening the Colonial and Indian Exhibition on Tuesday, May 4th.

AT the recent meeting of the governors of the Suffolk General Hospital, Dr. Macnab, of Bury St. Edmunds, was elected a vice-president of the institution.

VACCINATION GRANT.—Mr. Philip E. Hill, of the Crickhowell Union, has received for the fifth time the Government grant for efficient vaccination.

THE Royal Belgian Society of Medical and Natural Sciences has awarded a gold medal to Dr. Courtin of Bordeaux, for his treatise on the Treatment of Stricture of the Œsophagus.

LEGACIES FOR PRIZES.—M. Jeunesse has left the Faculty of Medicine of Paris sums of 1500 francs and 750 francs for the foundation of prizes in Hygiene and Histology respectively.

HOSPITAL FOR EPILEPSY AND PARALYSIS.—At the nineteenth annual meeting of the governors of and subscribers to this institution, on the 31st ult., it was stated that the total income for the past year amounted to £1908, and the debt by which the charity is hampered now amounts to £1400. The number of in-patients during 1885 amounted to 106, and the attendances of out-patients were 8088.

YELLOW FEVER AT PORT ROYAL.—The latest communications from Jamaica report that the Duke of Sutherland's yacht, *Sans Peur*, has been placed under quarantine at Port Royal, yellow fever having been contracted on board at Colon. There were four cases, one being rather serious.

AT an inquest held on the 31st ult., touching the death of Alfred H. Hackney, M.R.C.S., L.S.A., who died on the 28th ult., after inhaling chloroform for the relief of neuralgia, the jury returned a verdict of "Death from misadventure."

THE Baroness Burdett-Coutts, Lady Wolseley, and others, have started "scrap" carts, which collect broken food in Belgravia and Mayfair. It is carefully cooked and made into soups, stews, pies, and puddings, and sold at a penny a dish to the poor.

HASTINGS AND ST. LEONARDS SANITARY AID ASSOCIATION.—The fifteenth annual meeting of the members and friends of this Association was held on the 30th ult. It is claimed for this Society that it is the parent of similar institutions in London and elsewhere.

OPHTHALMOLOGICAL SOCIETY.—In consideration of the ordinary meeting of this Society on May 6th being arranged to be devoted to the discussion of the subject of Exophthalmic Goitre, it has been decided to hold an extra meeting, which has been fixed for the 8th inst.

FOTHERGILLIAN GOLD MEDAL.—This medal has been awarded by the Medical Society (trustee of the fund) to John Strahan, M.D., of Belfast. The successful essay is entitled "The Nature and Varieties of the Fevers prevalent in the United Kingdom," and will be published in due course in the Society's Transactions.

THE long-disused Spa Fields burying-ground to the south of Exmouth-street, Clerkenwell, being about to fall back to the freeholder, the Marquess of Northampton, has been handed over to the Playground Society, which is now enabled, in consequence of a grant from the Lord Mayor's fund, to employ a number of men in draining and levelling it.

"THE MAID OF KENT."—A maiden lady, named Heathorn, who is known by this title, has just completed her 103rd year, having been baptised at Maidstone in April, 1783. The venerable lady possesses all her faculties, and is reported to have endorsed a cheque without the aid of glasses on her birthday, which occurred last month.

A CLERK, until recently employed in the office of the General Council of Medical Education and Registration, in Oxford-street, has been sentenced to four months' imprisonment for embezzling sums of money, believed to amount to upwards of £500, which had been paid to him as fees for certificates of registration.

DR. EDWARD BRONNER, a German physician, who has spent some thirty years of his life in England, died a few days since at Bradford, Yorkshire. Dr. Bronner was an ardent politician, and in 1849 sat as a representative of the people in the Constituent Assembly of Baden. He was also remarkable for wide benevolence amongst the poor. He translated into English Moleschott's "Chemistry of Food."

SMALL-POX AT TOTNES.—An outbreak of small-pox at Totnes, and the efforts of the sanitary authority to check the spread of the epidemic by means of disinfection, seem to have caused considerable excitement in the town. The opposition to the precautionary measures has, it is reported, even assumed the form of personal violence against the medical officer of health and the nuisance inspector.

EAST RIDING COUNTY ASYLUM, BEVERLEY.—On the 26th ult., at about 5.20 P.M., an outbreak of fire took place in the above asylum. The fire was first observed in the roof of the house occupied by Dr. Macleod, the medical superintendent, and was well alight before being discovered. There was a strong wind blowing, which caused the flames to spread rapidly. The asylum engine and brigade were very promptly got into use. It was at once seen that the portion on fire could not be saved, so the efforts of the brigade were directed to preventing the fire spreading to the female wards, to which the superintendent's house is attached. In these efforts, aided by the direction of the wind, they succeeded. Other engines were on the spot in due time, and the fire was extinguished. The discipline of the asylum was

excellent; the patients were out of all harm's way without any panic or uneasiness, and, had matters turned out worse, no difficulty would have occurred in removing them to some place of safety. No one was hurt or in any way injured. Much property was saved, but Dr. and Mrs. Macleod lost their wardrobes, &c.

ST. JOHN AMBULANCE ASSOCIATION.—The half-yearly report of the North Yorkshire and Cleveland Miners' Association, just issued, makes very gratifying reference to the advantages of the instruction afforded by the St. John Ambulance Association. It is stated that classes have now been established at nearly every mine, and over 1800 men have become thoroughly qualified to render first aid in case of accident.

ACTION FOR ALLEGED CARELESS ADMINISTRATION OF CHLOROFORM.—An action at law has been instituted against two of the most renowned surgeons in Russia, Professor Sklifasofski and Dr. Kusmin, for alleged carelessness in administering chloroform, causing the death of the patient. It is reported, however, by the *Moscow List* that the necropsy proved that the cause of death was not narcosis, but something else.

LONDON HOSPITAL.—Last week a highly successful ball in aid of the funds of this hospital was held, and it is expected by the promoters of the gathering that, after paying all expenses, a goodly sum, measured by hundreds rather than by scores of guineas, will be available to hand over to the treasurer of the institution. During last year the total number of in-patients admitted was 8106, of whom 5754 were free, the rest being recommended by governors. The out-patients treated in that period were 67,942. To meet its expenses, the institution has an assured income of about £14,300, while, notwithstanding the utmost economy, its expenditure cannot be kept below £47,000.

UNIVERSITY COLLEGE HOSPITAL.—The annual general meeting of the governors of this institution was held on the 26th ult., when the report of the Council for the past year was received. It was stated that, though the total annual subscriptions had not fallen off, the legacies had decreased by £4000. Instead of a festival dinner, it is intended this year to hold a bazaar and fancy dress ball. The number of in-patients during the year was 2860. It is to be regretted that at the end of the year the hospital was in debt to the tradesmen and bankers to the amount of £13,652—an excess of £2556 over the deficit of the previous year.

THE HOMES OF THE WINDSOR POOR.—An important meeting was held at the Windsor Guildhall on the 25th ult., for the purpose of considering a scheme for the improvement of Bier-lane, one of the poorest quarters of the Royal borough. After a full discussion of the subject the meeting was adjourned for a month, in order that the Town Council may take such steps as they deem fit in furtherance of the project. The co-operation of several of the Royal Princes as patrons of the undertaking has been secured, and it is proposed to establish a limited liability company, to be called "The Windsor Artisans and Labourers' Dwellings Improvement Company."

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BELL, CHARLES R., M.R.C.S., L.R.C.P., has been appointed Surgeon to the Devon and Exeter Hospital, Exeter, vice William Budd, resigned.

CLIFTON, CHARLTON, M.B., C.M.Edin., has been appointed Ambulance Surgeon to the Northern Hospital, Liverpool.

DOWNES, HOWARD, M.R.C.S., L.R.C.P.Lond., has been appointed Registrar and Resident Clinical Assistant to the North-Eastern Hospital for Children.

EDGELOW, PERCY, M.R.C.S., L.R.C.P.Ed., has been appointed House-Surgeon to St. Peter's Hospital.

EVANS, THOMAS MELANCTHON, M.R.C.S., L.S.A.Lond., late Senior Assistant Surgeon, has been appointed Surgeon to the Hull Royal Infirmary.

GREEN, C. D., M.B.Lond., M.R.C.S., L.R.C.P.L., late Registrar, has been appointed House-Surgeon to the North-Eastern Hospital for Children, vice Meyer, resigned.

HADGOOD, WILLIAM, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Resident Clinical Assistant to St. Luke's Hospital, London.

HUMPHREYS, CHARLES R., M.R.C.S., L.S.A.Lond., has been appointed Public Vaccinator and Medical Officer of Health for the Llanfair District of the Llanfyllin Union, vice Jones, resigned.

NEWCOMBE, FRANK, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Ancaster District of the Grantham Union.

NICHOLSON, ROBERT HICKS BOURCHIER, M.R.C.S., L.S.A.Lond., late Assistant Surgeon, has been appointed Surgeon to the Hull Royal Infirmary.

PURDY, JAMES R., M.B., C.M.Aber., has been appointed Medical Officer for the Fourth District of the Hunslet Union.

REID, IRVINE K., M.B., C.M.Aber., has been appointed House-Surgeon to the West Norfolk and Lynn Hospital, King's Lynn.

ROBERTSON, THOMAS M., M.B., C.M.Ed., has been appointed Medical Officer for the West Butterwick District of the Gainsborough Union.

SHERBEEN, JOHN, M.B., C.M., M.R.C.S., late Assistant Surgeon, has been appointed Surgeon to the Hull Royal Infirmary.

SPENCER, HERBERT RITCHIE, M.B., B.S.Lond., late Senior Obstetric Assistant and House-Surgeon, has been appointed House-Physician to University College Hospital.

THOMAS, HUGH, M.R.C.S., L.S.A.Lond., has been appointed Honorary Surgeon to the Birmingham Lying-in Charity.

THOMPSON, HENRY, M.R.C.S., L.R.C.P., L.M., late Assistant Surgeon, has been appointed Surgeon to the Hull Royal Infirmary.

Births, Marriages, and Deaths.

BIRTHS.

BENOLY.—On the 21st ult., at Leytonstone, the wife of N. Benoly, M.D., of a son.

MORGAN.—On the 22nd ult., at Gnosall, Stafford, the wife of T. Whitworth S. Morgan, M.R.C.S., of a son.

ORMEROD.—On the 16th ult., at Upper Wimpole-street, Cavendish-square, the wife of Joseph Arderne Ormerod, M.D.Oxon., F.R.C.P.Lond., of a son.

SAUL.—On the 18th ult., at Bedford-square, the wife of William Saul, M.D., of a son.

SEQUEIRA.—On the 28th ult., at Jewry-street, Aldgate, E.C., the wife of Henry J. Sequeira, M.R.C.S., of a daughter.

SMYTH.—On the 24th ult., at Holly Lodge, Brockley-road, Brockley, S.E., the wife of S. Sydney Smyth, L.R.C.P., F.R.C.S., of a son.

TREHERNE.—On the 24th ult., at Aldershot, the wife of Surgeon Francis Harper Treherne, Army Medical Staff, of a son.

WILSON.—On the 21st ult., at The Cedars, Kenninghall, Norfolk, the wife of J. H. Wilson, M.R.C.S., of a son.

MARRIAGES.

BENNETT—ROLSTON.—On the 24th ult., at the Parish Church of Stoke Damerel, W. B. Bennett, Surgeon R.N., to Sabina Elizabeth, eldest daughter of John Rolston, M.D., J.P., of Stoke, Devonport.

FARR—JAFFREY.—On the 25th ult., at the Parish Church, Barnes, Ernest Farr, M.R.C.S., L.S.A.Lond., of St. Helier's, Uxbridge-road, Ealing, W., to Ida Florence, daughter of Archibald Jaffrey, of Fern Lea, Barnes-common, Surrey.

HAMILTON—HILL.—On the 25th ult., at St. John's, Walham-green, James Hamilton, M.D., to Florence Ada Cranstoun, daughter of John Haynes Downing, Esq., and widow of the late John Joseph Hill, R.N.

SHEEHAN—BAKER.—On the 23rd ult., at Lavenham Church, J. C. Sheehan, L.R.C.P.Ed., L.R.C.S.Ed., of Grove House, to Jane, second daughter of Thomas Baker, of Lavenham, Suffolk.

DEATHS.

CÆSAR.—On the 26th ult. (whilst staying with his brother at High-road, Tottenham), Henry Augustus Cæsar, L.R.C.P.Ed., &c., eldest surviving son of the late Henry Augustus Cæsar, M.D., F.R.C.S.I., aged 50.

CRAIG.—On February 7th, at Valparaiso, John Craig, M.B., C.M.Edin., aged 23.

FAYLE.—On the 29th ult., at Eastbourne, Higginson Fayle, M.R.C.S., aged 66.

GODFRAY.—On the 19th ult., at St. Helier's, Jersey, C. Le Vesconte Godfray, Esq., M.R.C.S., L.M., L.R.C.P. (St. Bartholomew's Hospital), Surgeon to the General Hospital and Prison, son of the late Francis Godfray, Esq., Barrister-at-Law, and Advocate of the Royal Court of Jersey.

LAWSON.—On the 23rd ult., at George-square, Edinburgh, Robert James Lawson, M.B., C.M., Assistant Surgeon, R.N., late of H.M.S. *Triumph*.

SMITH.—On the 23rd ult., at Croom's-hill, Greenwich, John Gregory Smith, F.R.C.S.L.

STRATTON.—On the 16th ult. (very suddenly), at his residence, Valletort-place, Stoke Damerel, Thomas Stratton, M.D., retired D.I.G.H.P., R.N., aged 69.

TENNENT.—On the 16th ult., at Tomintoul, Banffshire, N.B., William Archibald Tennent, L.R.C.P., F.R.C.S., aged 38.

THOMSON.—On the 28th ult., at Aldershot, Surgeon-Major Alexander Thomson, aged 45.

URWICK.—On the 23rd ult. (after a few days' illness), at New Quay, Cornwall, William Urwick, M.R.C.S., L.S.A.Lond., only surviving son of W. W. Urwick, of St. George's-road, Pimlico, London.

WISE.—On the 30th ult., at Braemar-villas, West-green, Tottenham, Thomas Wise, M.R.C.S., &c., late of Plumstead, Kent.

WOOD.—On the 25th ult., at his residence, Onslow-square, Neville Wood, M.D., F.R.C.P.E., fourth son of Charles Thorold Wood, of South Thoresby, late Captain, Royal Regiment of Horse Guards (Blue), and grandson of Sir John Thorold, ninth Baronet, of Syston-park, near Grantham.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

Medical Diary for the ensuing Week.

Monday, April 5.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—8 P.M. Communications by Drs. Joseph Walker, G. Cunningham (Cambridge), J. H. Redman (Brighton), and Messrs. C. T. Tomes, F.R.S., W. A. Maggs-Walter Colfin, S. J. Hutchinson, C. J. Boyd Wallis, F. Henri Weiss, E. G. Betts, J. H. Mummery, and A. S. Underwood.

SOCIETY OF ARTS.—8 P.M. Mr. Alan S. Cole: The Arts of Tapestry-making and Embroidery (Cantor Lecture).

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. John Lowe: Traumatic Hydronephrosis.

Tuesday, April 6.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Arthur Gamgee: The Functions of Circulation.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. P. W. Latham: On some Points in the Pathology of Rheumatism, Gout, and Diabetes (Croonian Lecture).

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Roger Williams: Acute Nephritis in Lambs.—Dr. G. N. Pitt: Hydatid of Liver embedded in Syphilitic Deposit.—Dr. Sainsbury: Valvular Obstruction of Ureter.—Dr. Price (Reading): Embolism of Abdominal Aorta.—Dr. Turner: Septic Aortitis.—Mr. Sydney Jones: (1) Malformation of Foot; (2) Peculiarly-shaped Calculi (card).—Mr. Lockwood: (1) Congenital Fatty Tumour from Sole of Foot; (2) (for Mr. W. Adams) Fatty Tumours from Palm of Hand.—Dr. Sharkey: (1) Meningeal Hæmorrhage; (2) Phthisis commencing at Base of Lung (card); (3) Stenosis of Mitral, Tricuspid, and Aortic Valves (card).—Dr. Carrington: Double Intestinal Stricture.—Dr. Pye Smith: Cystic Teratoma from an Infant (card).—Messrs. Lunn and Larder: Aortic Aneurysm (card).—Dr. S. Taylor: Cerebral Tumour (card).—Mr. E. H. Fenwick: Stone impacted in Prostatic Urethra (card).

Wednesday, April 7.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; and on Friday, 2 P.M.; and Saturday, 1 P.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. W. S. A. Griffith and others.—Dr. Matthews Duncan: On Contraction, Inhibition, and Expansion of the Uterus.—Dr. Coates: A case of Labour in a Primipara suffering from Mitral Disease.—Dr. Amand Routh: A case of Serous Perimetritis.—Dr. Champneys: Note on the Artificial Production of so-called Lymphatic Varix.

SOCIETY OF ARTS.—8 P.M. Mr. J. S. Hodson: Preparation of Drawings for Photographic Reproduction.

Thursday, April 8.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Dewar: Electro-Chemistry.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Mr. W. H. Stone: Man as an Electric Conductor, Condenser, and Electrolyte (Lumleian Lecture).

SOCIETY OF ARTS.—8 P.M. Mr. James Boyd: Asbestos and its Applications.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Adjourned Discussion on Mr. Priestley Smith's paper.—Mr. W. H. Jessop: (1) A New Pupillometer; (2) On Herpes Frontalis affecting the Eye.—Mr. W. Lang: A New Microtome.—Dr. L. Werner: On Vitreous Infiltration of the Retina and Central Guttate Choroiditis.—Mr. R. Brudenell Carter: Two New Forms of Perimeter.—Mr. W. Spencer Watson: Hæmorrhagic Glaucoma treated by Trephining.—Mr. G. E. Walker: Glaucoma treated by the use of Convex Lenses.—Mr. Edgar A. Browne: (1) Wound of one Eye followed almost immediately by Iritis Serosa in the other; (2) Water-colour Drawing by a Colour-blind Artist. (Living and Card Specimens at 8 P.M.)

Friday, April 9.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. Percy Dunn: Clinical Society of London.—8.30 P.M. Dr. Stephen Mackenzie: On Erythema Nodosum, especially dealing with its connexion with Rheumatism.—Dr. Samuel West: On some peculiar cases of Pneumothorax. Mr. Walsham: A case of Lithotrity at a Single Sitting in a Boy ten years of age.—Dr. Carrington: A case of Rheumatic Hyperpyrexia.—Mr. Bellamy: Enormous Vascular Growth of the Upper Extremity in a Child (living specimen).

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. William Anderson: New Applications of the Mechanical Properties of Cork to the Arts.

Saturday, April 10.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. Oliver Lodge: Fuel and Smoke.

SOCIETY OF ARTS.—3 P.M. Prof. George Forbes: Electricity.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 1st, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 26	29·97	S.W.	52	50	...	57	50	...	Cloudy
,, 27	29·85	W.	53	51	...	52	53	·09	Cloudy
,, 28	29·95	S.W.	50	49	...	59	49	·07	Cloudy
,, 29	29·69	W.	48	47	...	55	43	·06	Overcast
,, 30	30·09	W.	45	41	...	51	39	·11	Fine
,, 31	29·67	W.	50	47	...	56	44	·09	Cloudy
Apr. 1	30·18	W.	45	41	97	57	40	...	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

THE CHAIR OF PHYSIOLOGY AT ABERDEEN.

Professor Haycraft writes to ask to be allowed to contradict a statement which appeared in our issue of Feb. 6th that he is a candidate for the above post.

Mr. J. M. Edmunds.—The London School of Dental Surgery, Leicester-square; or the National Dental College, Great Portland-street.

THE POTASSIO-MERCURIC-IODIDE TEST.

To the Editor of THE LANCET.

SIR,—Works published within the past year, containing references to albumen tests, still recommend the potassio-mercuric iodide as being an exceedingly delicate and trustworthy reagent, with the additional advantages of being handy and easily applied. Of course by itself it is useless, unless citric or acetic acid be added to the urine, as in testing with potassium ferrocyanide or sodium tungstate. Now, everybody admits that potassio-mercuric iodide and citric or acetic acid will precipitate albumen. But it is a very different matter to admit that a precipitate given in any clear urine by these reagents is necessarily due to albumen. As a matter of fact, it may not be due to albumen. I cannot speak with anything like certainty regarding the other two reagents (potassium ferrocyanide and sodium tungstate), though I believe they are fallacious; but from a number of experiments I made in the London Hospital in 1883 with the potassio-mercuric iodide, I can confidently say that if sufficient time be allowed it will give a precipitate with almost every specimen of urine put to the test, even should no trace of albumen be detected by any other known reagent. This circumstance may possibly be explained by supposing the potassio-mercuric iodide to give increased effect to the precipitate of mucin which the acids have the power of producing. It is therefore not to be wondered at, though this test be found so remarkably delicate, the true explanation being that it is remarkably delusive and dangerous.

I am, Sir, yours truly,

Wick, March 17th, 1886. A. G. AULD, M.B., &c.

Mr. James McCulloch, M.R.C.S.—The name of the dentist mentioned is in the Dentists' Register for this year, as being in practice before 1878. He therefore has a legal standing.

VENTILATING SEWERS.

To the Editor of THE LANCET.

SIR,—Without doubt you are right in your statement that an efficient, safe, and cheap method of ventilating sewers is by pipes carried up above the buildings. Perhaps it would interest some of your readers to learn that recently an invention was patented by W. M. Hawkins, 59, Albion-street, Birmingham (No. 3103-84), by which clay pipes are securely held together with iron or steel hooping running through their edges to hold them in position. They can be carried up any height without any outside support. They cannot fall down, and no foul air can escape through the places where they are joined together. When once fixed they cannot move. The method is not expensive. I have also seen it tested as stove pipes, starting from the floor and going straight through the roofs of buildings.

I am, Sir, yours faithfully,

Clare, March, 1886. J. JOHNSON.

EXTRAORDINARY SUBJECT FOR A PRIZE ESSAY.

THE Paris Academy of Medicine has chosen an extraordinary, not to say an impossible, subject for a prize essay this year—"Préciser par une Série d'Observations s'il existe un Traitement Abortif de la Syphilis Confirmée" (to determine by a series of observations if there exists an abortive treatment of confirmed syphilis), upon which M. Diday has suggested that the Academy must have been seized with an economical fit, and that it would be interesting to see if anyone could manage to write a paper of 400 pages on abortive treatment directed against confirmed syphilis.

Mr. John Woodland.—It is certainly right to ask permission before using a name or case publicly; but we quite perceive that this rule might be broken from mere inadvertence.

A Student.—Harrison Cripps' or Allingham's work.

COLOUR-BLINDNESS; ANOSMIA; GLAUCOMA.

To the Editor of THE LANCET.

SIR,—The letter of Mr. Pease in THE LANCET of March 13th, p. 528, has indirectly given rise to one from Dr. Nicholas, and to another from "M.D. Durh.," in to-day's issue (p. 621). Both these letters, though somewhat apart from the original subject—colour-blindness among medical men—possess points of interest of their own.

I am not in a position to say much in reply to Dr. Nicholas; but I believe it is generally admitted that defects in the sense of smell, when they occur, are rather variations in degree of appreciation than confusion of odours. If the latter exist as a pathological result, I should fancy that it might in most cases be referred to an interference with the purity of the odour presented to the nervous apparatus on account of some fetid discharge in the nasal fossæ. As the result of imperfect development, I doubt whether we have anything parallel to colour-blindness. There may, of course, be a general lack of intelligence, or a want of education, on the part of some individuals which might lead a casual observer into the belief that odours are sometimes confused. But this confusion would then be merely the result of ignorance, and would in no way be comparable to colour-blindness. I advance this opinion in all humility, and beg to add that I am quite open to correction. As to the odour of chloral hydrate, I feel sure I am right in saying that it is universally considered to resemble that of melons. We have Dr. Garrod's authority on this point. I confess I have not read the evidence given by Dr. Stevenson; but I imagine the word "lemon" to be merely a typographical or reporter's error, in which the letters have become misplaced.

With regard to the suggestion made by "M.D. Durh.," that the word "glaucoma" is derived from γλαυξ, γλαυκος, an owl, I own I am unconvinced. I do not deny that many words are worse parented, if I may be allowed the expression; but on looking into the matter a little more closely, I think we shall be led to the conclusion that the tint of sea-green noticed in many cases of glaucoma really did give rise to the name of the disease. Mr. Brudenell Carter says: "In some of the more acute forms of increased tension the pupil presents a clouded aspect of a greenish colour; and it was to cases of this class that the word glaucoma (*from* γλαυκος, sea-green) was originally applied, at a time when the pathology of the condition was not understood." At the time to which Mr. Brudenell Carter alludes there was no doubt a large proportion of cases of increased tension in which the greenish colour was absent; but these cases, be it observed, were not placed in the same category. The inference is obvious. When it became known to pathologists that the greenish tint seen in the pupillary area was not an essential feature in every phase of the disease, the meaning of the term "glaucoma" was stretched to include all cases in which a block in the drainage system of the ligamentum pectinatum became evident by increased tension, cupping of the disc, &c. In conclusion, I may say that I have drawn the attention of some of my *confrères* in ophthalmic surgery to the letter of "M.D. Durh.," and the unanimous opinion is in favour of the accepted derivation.—I am, Sir, yours truly,

A. ST. CLAIR BUXTON, F.R.C.S.,
Assistant-Surgeon to the Western Ophthalmic Hospital.

Orchard-street, W., March 27th, 1886.

M.R.C.S.—The Medical Defence Associations exist for bringing such persons to justice; but, unfortunately, they meet with only a limited support from the profession. A person who *falsely* uses titles which imply that he holds medical qualifications is a fair subject for prosecution.

M. PASTEUR'S INOCULATIONS.

To the Editor of THE LANCET.

SIR,—Since it is likely that a body of commissioners will be formed to investigate Pasteur's method of inoculation for hydrophobia, and as several eminent members of the medical profession have been asked and consented to serve on such a commission, might I, as a member of the Royal College of Veterinary Surgeons, suggest that one of the commissioners be a veterinary surgeon. Considering the veterinary profession has so much to do with rabies canina, I think it is justly entitled to some share in the honour. Are we all not very much indebted to Mr. George Fleming, who has always taken a very great interest in the subject, for a great deal of information concerning rabies, and what more fitting acknowledgment could be bestowed on him than that he should be elected as one of the commissioners?—Yours obediently,

Manchester, March 29th, 1886. JOHN MOORE, M.R.C.V.S.

ACTION FOR MEDICAL ATTENDANCE IN AN ALMSHOUSE.

THE *Dundee Advertiser* of March 19th and 27th respectively contain the report of a very just action at law by Dr. Lawrence of Brechin, N.B., to recover £16 for a year's medical attendance on the late Miss Christina Jamieson, and of a very just decision of the sheriff substitute. Miss Jamieson, an old lady, was an inmate of the Brechin poorhouse—a sort of almshouse. But Miss Jamieson was not poor. She was not a pauper; for she paid latterly 10*s.* a week for her board, and died leaving a few hundred pounds to her relatives. Under these circumstances, it was not unreasonable that Dr. Lawrence should look to her trustees for payment. The sheriff entirely supported his claim, and allowed him £12 12*s.* and expenses of the suit. He held that the parochial board had nothing to do with Dr. Lawrence's claim, and that he, *qua* their officer, did not attend Miss Jamieson. The almshouses of Scotland are not on the same legalised footing as the workhouses in England; and Dr. Lawrence's case will be regarded by Scotch practitioners as one of some interest, and involving a question that has not been raised before.

Mr. A. Crespi.—Messrs. Longmans have published a book, entitled "Louis Pasteur, his Life and Labours," written by his Son-in-law, which was reviewed in THE LANCET, May 2nd, 1885.

Surgeon Lees Hall.—We regret we cannot comply with our correspondent's request, as to do so would be contrary to our custom.

THE PHARMACOPŒIA TEST FOR PEPSIN.

To the Editor of THE LANCET.

SIR,—In Dr. Murrell's interesting note on "Pepsin as a Digestive Agent," published in your issue of Feb. 27th, reference is made to the test for pepsin adopted in the new edition of the Pharmacopœia. Dr. Murrell sums up the differences between the tests of the 1867 and 1885 Pharmacopœias, and obtains as a "net result that our standard has been raised 71·5 per cent., for which," says he, "too much gratitude cannot be shown." This conclusion appears to be based upon the assumption that pepsin is 16 per cent. more active at 130° F. than at 98°. Experiment will prove that the increase in the activity of pepsin at the higher temperature is much greater than this.

The test for pepsin adopted in the Pharmacopœia of 1885 is that proposed by me as an amendment to the then official one, in a paper read before the British Pharmaceutical Conference in 1881, and printed in the "Year Book of Pharmacy" for that year, p. 417. It has been in constant use in my laboratory since that time. It is so simple and expeditious that Dr. Murrell's advice, "Test your pepsin," can be followed by all, to the great advantage of their dyspeptic patients. My original paper contains some rather important details of manipulation, necessarily omitted in the brief Pharmacopœia directions. The white of egg having been pressed through the wire gauze should be lightly rubbed in a glass mortar during the addition of the acidulated water, so as to separate the vermiform particles; this cannot be done by merely stirring. I always use wide test-tubes standing in a large beaker of water as a water bath; each tube is provided with a small glass stirrer. Half a dozen samples can in this way be tested at the same time under absolutely similar conditions. Dr. Murrell's opinion that "to give only from two to five grains of pepsin at a time is a palpable absurdity," may possibly be modified by a consideration of the fact that whilst in our laboratory experiments the products of digestion remain in the digesting apparatus, and gradually retard, and finally stop, the action of the ferment, in the stomach these products are constantly removed as digestion goes on. It must not be supposed that 100 grains of egg albumen are all that two grains of B.P. pepsin, or the minimum dose of a fluid preparation of pepsin, will digest in half an hour under other conditions, and with other surroundings! The following experiment will demonstrate the contrary. Ten times the Pharmacopœia quantity of egg and acidulated water were taken—that is, 1000 grains of egg and ten fluid ounces of acidulated water; these were placed in a beaker; 100 grains of egg and one fluid ounce of acidulated water were placed in a large test-tube and stood in the beaker; and the whole heated to 130° F. One fluid drachm (the minimum dose) of an active fluid preparation of pepsin was then added to both beaker and test-tube, the temperature maintained constant, and the contents of both stirred occasionally. When the egg in the test-tube had all dissolved, which in this experiment occupied twenty-five minutes, the contents of the beaker were thrown on a fine muslin filter and drained; the undissolved egg weighed 220 grains. Here then a dose of pepsin had dissolved 780 grains of egg in ten ounces of fluid, whilst a similar dose had dissolved 100 grains in one ounce of fluid. Another attempt was made to approach more nearly to the conditions under which pepsin acts in the stomach. The egg, acidulated water, and pepsin were placed on a parchment dialyser and floated on a bowl of acidulated water. In this case it was found that enormously more egg was dissolved in the dialyser than in a test-tube containing the same mixture. I fear my communication is already too long. I will only add that in testing B.P. pepsins against liquid preparations of pepsin the only fair way is to take the minimum dose of each—say, two grains of B.P. pepsin and one fluid drachm (the usual minimum dose) of fluid preparations; or one part of solid against thirty parts of liquid. I observe that Dr. Murrell took in his experiments one grain of dry pepsin and ten grains of fluid preparations. Obviously his results may have been misleading.—Yours obediently,

F. BADEN BENGER, F.C.S.

Exchange-street, Manchester, March 8th, 1886.

MINCING MACHINES.

WITH reference to a letter on this subject which appeared in our issue of March 13th, Messrs. J. Coppard and Co., of New Charles-street, E.C., write to say that the machines manufactured by them are free from the objection referred to by the writer of the letter, being made entirely of iron.

Mr. Jas. W. Smith.—The College of Surgeons issued a circular to their Fellows, intimating that the space at their disposal was very limited, and requesting those Fellows who wished to be present to send in their names, when the available seats would be assigned by drawing lots. A notice to a similar effect, addressed to the Members, was also published in our advertising columns of March 6th. As regards the College of Physicians, we believe that all the Fellows and Members had the opportunity afforded them of being present, and that the licentiates were taken in order of seniority. The authorities of the two Colleges seem to have used every endeavour to deal fairly with all who had any claim to be present.

Dr. Abrath.—We are not prepared to again open up the case.

PHOSPHORUS.

To the Editor of THE LANCET.

SIR,—As it is probable that the discussion at the meeting of the Clinical Society on March 12th on Mr. Hutchinson's case of necrosis may have left some of your readers in perplexity as to the possibility of phosphorus producing necrosis when given in a pill over a long period, the following extract from an undoubted authority will be read with interest.

Writing upon the action of phosphorus, Dr. Lauder Brunton says: "Its action upon the bones is somewhat peculiar, and has been fully investigated by Wegner. ..... In men exposed to the fumes of phosphorus—e.g., those employed in the manufacture of lucifer-matches—caries of the lower jaw is a frequent occurrence. This is *not* due to the action of the phosphorus *after absorption into the circulation*, but to the *direct effect of the fumes* upon the bone itself. For it has been shown that when a bone of an animal *fed upon phosphorus* was exposed, *no carious change took place*; but if one were exposed to the fumes, caries was produced, and amongst lucifer-match makers it has been noticed that only those who have carious teeth suffer from necrosis." (Brunton's Pharmacology, Second Edition, page 638.)

Again, in Dr. Ringer's Handbook of Therapeutics (Seventh Edition, page 304), we find the following confirmatory statement:—"The effects of chronic phosphorus poisoning have lately been elaborately worked out on animals by Dr. George Wegner, and with singular results. It has long been known that workmen exposed to the fumes of phosphorus are liable to necrosis of the jaw, and Dr. Wegner believes that this results from the direct action of phosphorus on denuded bone, and that necrosis will not set in unless, through wounds or carious teeth, there is some destruction of the soft tissues, thus enabling the phosphorus to reach the exposed bone. In support of this view, he adduces the following reasons: (1) If the periosteum of an animal is severely wounded, and phosphorus is given *in the form of a pill even for months*, the periosteal changes do *not take place*. (2) When the tibia of a rabbit is partially bared, a healthy granulating wound is soon established; but under exposure to a phosphorus atmosphere, periostitis is set up, similar to that in the jaw. (3) Many workers in phosphorus escape, whilst those who do suffer have carious teeth."—I am, Sir, yours faithfully,

Beckenham, March 24th, 1886. E. A. KIRBY, M.D.

Chyluria.—Chylous urine contains either a coagulum or flaky clots from the breaking up of the former in the great majority of cases. Unlike a mixture of urine and milk, chylous urine is further recognised by the fact that "the fatty matter almost invariably occurs in the form of excessively minute granules." The presence of large fat globules and the absence of a coagulum afford very strong evidence that the fluid is other than chylous urine.

X. Y. Z.—Our correspondent should refuse to give a certificate, and leave the responsibility with the coroner.

"FEMALE LABOUR IN COLLIERIES."

To the Editor of THE LANCET.

SIR,—Having seen an annotation under the above heading in your last issue (p. 600), I beg to submit that, in my opinion, the writer has judged both the work and the workers erroneously. As I have lived all my life in a colliery district, and have also served my indentures with a surgeon to a large colliery, I think I may say that I have seen the "Lancashire pit-woman" in all phases of her character. I feel sure that any person visiting the home of the female labourer on the pit brow will find that the household duties are as well performed as in any other household in a colliery district. Her morals will bear comparison with either those of the factory operative or the daughter of the agricultural labourer; for they are equal, if not superior, to both. Their clergymen bear witness that they do not suffer in this respect. Physically, their muscular development is surpassed by no woman. I think any colliery surgeon will bear me out when I say that they do not suffer from a health point of view. Now, when they are not injured morally, physically, or in a domestic sense, why should they be hindered from bearing their share of the world's work?—I am, Sir, yours truly,

ROBERT STOPFORD, L.K.Q.C.P.I.,
Late Medical Officer, Perim Island, Red Sea.

Appley Bridge, Wigan, March 30th, 1886.

A REMARKABLE DISLOCATION OF THE THIRD CUNEIFORM BONE.

To the Editor of THE LANCET.

SIR,—The following case is, I think, sufficiently rare to deserve being placed on record.

In February of last year an accident happened opposite my house, and the sufferer was at once brought into my surgery. I had witnessed the accident. The patient, a man of about thirty-five years, of pale and relaxed fibre, showed upon examination a dislocation of the external cuneiform bone. The luxation was somewhat peculiar; the entire bone, being displaced upwards, lay upon the inner edge and dorsum of the os cuboides. About half the dorsal surface of the cuboid bone was covered by the plantar surface of the cuneiform. The displaced bone could be very distinctly seen through the stretched skin of the dorsum of the foot, as if a cube had been placed under it. The patient suffered very little pain, and the bone could be easily reduced by mere pressure upon the dorsal surface, with only the slightest possible extension of the toes. When the foot was flexed by the will of the patient the luxation recurred. The member was placed in an appropriate splint, with a graduated pad over the displaced bone. The man was then removed to his home, some miles away. He thus passed from my care, and I have heard nothing further from him. The accident happened thus:—The man was endeavouring to mount a barebacked horse, which was standing close to the kerb-stone. He threw his right leg over the animal, which started forward with a bound, dislodging him backwards. As the horse passed from under him, he came down upon the edge of the kerb-stone with his left foot flexed and abducted. The sole was also somewhat everted.

I am, Sir, yours faithfully,
HAYGARTH ADDISON, L.F.P.S.G.

Seven Sisters-road, N., March 23rd, 1886.

Dr. C. W. Pilgrim.—The reference probably was to the Edinburgh Medical Missionary Society, the secretary of which is the Rev. John Lowe, 56, George-square, Edinburgh.

L.R.C.P.—Erichsen's Surgery; Pepper's Surgical Pathology.

"PRACTICE AT THE CAPE."

To the Editor of THE LANCET.

SIR,—Having returned this month from the Cape Colony after a residence there of some years, I can endorse most of what "Cape Colonist" says in answer to "A Constant Reader's" letter in THE LANCET of March 20th (p. 621). The last three years have been years of drought, with consequent immense pecuniary loss to the farmers—the producers of the country. The harvest of this year, however, owing to abundant rainfall, promised to be a plentiful one; and the colony is very elastic, so that with a few good seasons the prospects of anyone intending to settle in South Africa would be much brighter. At the present time I would not recommend a doctor to venture out there. Still there are one or two openings in up-country places, and if "A Constant Reader" will communicate with me, I should be happy to supply him with any further information. In the Government *Gazette* for the colony vacant "district surgeoncies" are advertised from time to time, and any medical man leaving for the Cape would find it of great advantage in being able to go straight to such an appointment. When I left the Government had in view the establishment of a district surgeon at Tsolo, in Tembuland, with a salary of £250 per annum, with allowances and practice. But to secure these billets it is advantageous to have local influence.

I am, Sir, yours obediently,
Dartford, March 30th, 1886. HENRY H. STURGE.

PLASTIC BRONCHITIS.

To the Editor of THE LANCET.

SIR,—I shall be indebted to you if you will kindly insert the following case, which has baffled all treatment, as far as a cure is concerned.

The patient, a female about middle age, is suffering from plastic bronchitis, and regularly expectorates large quantities of membrane, which unquestionably come from the bronchi and trachea. She has periodical attacks (every week or nine days) of dyspnœa, followed by casts of membrane which are expectorated with more or less bloody mucus attached to them. Some of the casts are as large as 1½ in. square. As soon as the attack is over she will be comparatively well for a week or so, until another attack ensues. I have prescribed all the usual remedies, but without permanent effect, and should be greatly obliged to any of your readers who have met with similar cases for their advice, either privately or through THE LANCET.—I am, Sir, yours truly,

March 26th, 1886. CYMRO.

"DIPHTHERIA AND PIGEON-KEEPING."

To the Editor of THE LANCET.

SIR,—In your issue of March 20th, p. 576, it is stated that M. Destrée of Brussels has called attention to the fact that there may be some connexion between pigeons and diphtheria. In a paper on an epidemic of diphtheria observed in Naples in 1871, published in the *Edinburgh Medical Journal* in 1872, and subsequently copied nearly *in extenso* in the *Medical Times and Gazette*, and in my graduation thesis in the University of Paris in 1881, I pointed out the fact that in the epidemic in question the wells were largely contaminated by the excrement of pigeons and poultry, and in some cases by that of horses. I also suggested guano under certain circumstances as a possible factor.—Yours truly,

Venice, March 23nd, 1886. J. A. MENZIES, M.D. Ed. & Paris.

"DOCKED FEES."

To the Editor of THE LANCET.

SIR,—In reference to the communication of a correspondent in your last issue (page 604), on what he terms with more force than elegance "docked fees," will you kindly allow me, in the spirit of your motto, "audi alteram partem," space for a few remarks.

Far from agreeing with the tone of your correspondent's letter, which attributes to parsimony what I prefer to believe in the majority of cases is due to a laudable delicacy, I would merely observe that there has long been felt a certain amount of awkwardness in tendering to a doctor the extra silver coin the guinea fee necessitates. The guinea fee is a nuisance that has long been felt, and many doctors, in Ireland at least, have long since allowed it to drop into a silent grave. The inconvenience applies to many other cases. School fees, lawyers' fees, hospital fees, fees for classes of every description, are still reckoned in guineas, much to the inconvenience of the public. Quite different was the case when the guinea was the standard gold coin of the realm. It would have been quite as anomalous then to tender a professional man a fee of twenty shillings, the guinea being the legal coin, as it is now to tender a fee of twenty-one shillings, the sovereign being the legal coin. It is high time the medical profession separated themselves from this obsolete rate of remuneration. Let your correspondent recollect that if his fees are slightly diminished by the substitution, there will be a corresponding gain in other respects. He will effect a saving in his children's school fees, in his son's medical fees (should he follow in his father's footsteps), and should he unhappily tempt the law's delays, more important still, in his legal fees. Let the guinea fee follow the obsolete coin, and it will be found that the theoretical loss will in reality become an immense gain.

I am, Sir, yours truly,

March 30th, 1886. M.B. DUB.

INCOMPATIBLES.

To the Editor of THE LANCET.

SIR,—In the ninth edition of Garrod's Materia Medica, on page 326, it is stated that under the head of incompatibles neither liquor potassæ nor any other caustic alkaloid should be prescribed with tincture or extract of henbane, *as the virtues of the latter drug are completely neutralised*. (The italics are my own.) On page 311, prescription No. 69, of Tanner's Index of Diseases, the following prescription will be found:—℞ Liquoris Potassæ, ℥ x–xv.; Tincturæ Hyoscyami, ℥ xx.; Infusi Bucco, fl. ʒ jss.: Ft. Haustus. If the statement in "Garrod" is correct, then the prescription in "Tanner" is worthless. Perhaps you or some of your readers can kindly inform me whether, after all, it is no more harm to prescribe liquor potassæ and hyoscyamus than to order bark and bichloride of mercury, which is often done, though these drugs are said to be incompatible.

I am, Sir, yours faithfully,

March 23rd, 1886. DUBITANS.

FOOD FOR THE DESTITUTE.

To the Editor of THE LANCET.

SIR,—Seeing an annotation in your issue of March 13th, p. 505, on nutritious food for the poor, I venture to forward you the following information upon that now absorbing subject. I have, with the assistance of a lady, for the last three weeks supplied to destitute families in my neighbourhood an average of 300 dinners a week, which might be termed "Irish stew," composed of stock made from bones, onions, carrots, rice, potatoes, and beef or mutton without bone, each person having from four to five ounces of the latter at a cost of a fraction under twopence-halfpenny each. We supplement this by the addition of one hundred-weight of coal to each family. I remain, Sir, yours truly,

March 24th, 1886. M.R.C.S.

A CORRECTION.

To the Editor of THE LANCET.

SIR,—In your otherwise correct report of the case of multiple phlebitis read at the Islington Medical Society, I beg to state that the published temperatures were carefully taken in the *mouth*, not in the rectum, as reported.

I am, Sir, yours faithfully,

Green Lanes, N., March 27th, 1886. ALEXANDER MORISON, M.D.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. F. S. Eve, London; Dr. Sansom, London; Mr. St. Clair Buxton, London; Mr. W. Fraser, Aberdeen; Dr. McNab, Bury St. Edmunds; Mr. H. Welch, Blackpool; Mr. Pirkis; Mr. Lingard, London; Dr. Hutchison, Glasgow; Dr. C. A. Leale, New York; Mr. Nicholas; Dr. Trueman, Nottingham; Mr. J. W. Smith, Doncaster; Mr. W. O. Nicholson, London; Dr. Hood, London; Sir E. Lechmere; Dr. A. Morison, London; Dr. Blomfield, Exeter; Mr. Arthur, Walsall; Dr. Norman Kerr, London; Mr. Hemingway, Steeple Aston; Mr. Scott, Wood Green; Dr. Lewers, London; Mr. Sergeant, London; Mrs. Gladstone, Lyndhurst; Mr. Marshall, Glasgow; Mr. Garman, Slimsby; Mr. J. Moore, Manchester; Mr. Steadham, Fairlawn; Messrs. Burroughs and Wellcome, London; Mr. Greenwood, Hanley; Messrs. G. Haller and Co., London; Surgeon-Major Colson, Aden; Mr. T. D. Greenlees, Garlands; Mr. Foreman, Wigan; Mr. Bender, Manchester; Mr. C. Gross, London; Dr. Warlomont, Brussels; Mr. Alfred Wallis, Exeter; Dr. Haslam, Birmingham; Dr. C. Y. Pearson, Cork; Mr. Laurence, Brechin; Mr. Gubb, London; Mr. H. G. Shaw, London; Mr. Fuge, Taunton; Messrs. Beal and Sons, Brighton; Messrs. Whitfield and Co., Birmingham; Mr. Booth, Plymouth; Dr. Spender, Bath; Mr. T. Cooke, London; Dr. Dowding, Bournemouth; Dr. Armstrong, South Shields; Mr. Stewart, Poplar; Dr. Chapman; Messrs. Middleton and Co., London; Mrs. Pratt, Bournemouth; Messrs. Antice and Co., London; Dr. Struthers, Aberdeen; Dr. Diver, Kenley; Mrs. Piggott, Preston; Messrs. Snell and Co., Dundee; Mr. Cockerell, Porth Leagon; Mr. Sacker, London; Dr. Martin, London; Mr. T. L. Webb, Ironbridge; Dr. R. Macpherson, Glasgow; Dr. Illingworth; Mr. G. Jackson, Plymouth; Dr. Saundby, Birmingham; Messrs. Maclachlan and Co., Edinburgh; Mr. Stopford, Wigan; Dr. P. S. Jones, Sydenham; Dr. Bralley, London; Dr. Hastings, Ryde; Messrs. Reid and Co., Bristol; Mr. Armstrong, Manchester; Messrs. Haller and Co., London; Mr. Graham, London; Mr. Kinloch, London; Mr. Potter, London; Mr. Parkes, Bristol; Mr. Linford, London; Mr. St. Dalmas, Leicester; Dr. Hollins, Wakefield; Mr. Auncham, Dundee; Mr. Bramwell, Stafford; Mr. Waller, Peterborough; Dr. French Banham, Reading; Dr. Horrocks, London; Mr. A. H. Barker, London; Mr. Vose Solomon, Birmingham; Dr. T. Robinson, London; Dr. Pasteur, London; Medicus, Uxbridge; M.B. Dub.; Beta; A. J. H. C.; Matron, Ipswich Hospital; M. Inst. C.E.; Justice; Vox Clamans; E. H. G., Finsbury.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Kershaw, Surbiton; Messrs. Zimmerman and Co., London; Mrs. Watson, Great Yarmouth; Mr. Field, Bradford; Mr. Vouser, London; Mr. Fuller, Jersey; Messrs. Ellis and Co., London; Mr. James, Pentre; Mr. Owen, Teignmouth; Mr. Guest, Darlington; Dr. Smyth; Mr. Armagh, Melbourne; Mrs. Tennent, Tomintoul; Dr. Robinson, Bolton; Mr. Manley, Colchester; Dr. Kerr, London; Miss Crawhall, London; Mr. Paine, Worthing; Mr. Rideal, London; Dr. Welch, Cannes; Messrs. May and Co., London; Mr. Roberts, Attercliffe; Messrs. Ladd and Son, Canterbury; Mrs. Craig, Eastwood; Dr. Eberle, Thirsk; Dr. Skelton, Bristol; Mrs. Andrewes, Jersey; Mr. Monk, Highbury; Mrs. Pratt, Bournemouth; Mrs. Wheatley, Worthing; Messrs. Hasel and Watson, London; Mr. Morgan, Islington; Mr. Stewart, Poplar; Mr. Griffiths, Lampeter; Mr. Anderson, Swansea; Mr. Merryweather, Guisboro'; B. A. E.; X. Y. Z., Sandown; W. T.; Matron; M. A.; F. B.; Delta, London; Chemicus, Exeter; Cantab., Bayswater; Matron, Rochdale Infirmary; Physician; Surgeon, Battersea; Zeta; Medicus, Bayswater; Voyage, Kensington; Alpha; M.R.C.S.; Medicus, Newcastle; M.D., Hackney; X. Y. Z., Finsbury; Sigma, Tipperary; Matron, Bedford Infirmary; Medicus, Reading; A. B., London; L.R.C.P., Finsbury-park.

British Journal of Photography, Doncaster Chronicle, Manchester Courier, Ballarat Star, Wigan Examiner, Sunderland Echo, West London Observer, Derbyshire Times, Bucks Advertiser, Manchester Guardian, Liverpool Mercury, Newcastle Daily Leader, &c., have been received.

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